

November 4, 2015

South Carolina Public Employee Benefit Authority
South Carolina Retirement Systems
P.O. Box 11960
Columbia, SC 29211-1960

Subject: Statement of Certification for the Actuarial Valuation as of July 1, 2014

Dear Members of the Board:

Actuarial valuations are prepared annually as of July 1, the first day of the plan year, for each of the five retirement systems (i.e. the South Carolina Retirement System, the Police Officers Retirement System, the Judges and Solicitors Retirement System, the General Assembly Retirement System, and the South Carolina National Guard Supplemental Retirement Plan). These reports describe the current actuarial condition of the South Carolina Retirement Systems and document the calculated employer contribution rates as well as the changes in these contribution rates.

Financing Objectives and Funding Policy

The employer and member contribution rates for the South Carolina Retirement System and the Police Officers Retirement System are determined in accordance with South Carolina Code. As specified by the Code, in the event the scheduled employer and member contribution rates are insufficient to maintain a thirty-year amortization period for financing the unfunded liability of the System, the South Carolina Public Employee Benefit Authority (the Board) shall increase the employer and member contribution rates in equal amounts as necessary to maintain a funding period that does not exceed thirty years.

The Board also certifies the employer contribution rates annually for the Judges and Solicitors Retirement System, the General Assembly Retirement System, and the South Carolina National Guard Supplemental Retirement Plan. The Board's principle objectives to determine the appropriate funding requirements for these systems include:

- Establish a contribution rate that remains relatively level over time.
- To set rates so that the measures of the System's funding progress, which include the unfunded actuarial accrued liability, funded ratio, and funding period, will be maintained or improved.
- To set a contribution rate that will result in the unfunded actuarial accrued liability (UAAL) to be amortized over a period from the current valuation date that does not exceed 30 years.

To accomplish this, the employer contribution rate will be at least equal to the sum of the employer normal cost rate (which pays the current year's cost) and an amortization rate which results in the UAAL being funded over a period that does not exceed 30 years in installments. These installments increase at the assumed rate of growth in payroll for each System.

If new legislation is enacted between the valuation date and the date the contribution rates become effective, the Board may adjust the calculated rates before certifying them, in order to reflect this new legislation. Such adjustments are based on information supplied by the actuary.

Progress toward Realization of Financing Objectives

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a plan's funded status. In the absence of benefit improvements, it should increase over time, until it reaches at least 100%. For all systems on a combined basis, the funded ratio slightly increased from 63.2% in 2013 to 63.5% in 2014.

Assumptions and Methods

The Board, in consultation with the actuary, sets the actuarial assumptions and methods used in the valuation. South Carolina State Code requires the Board to have the actuary perform an experience study every five years. The last experience study was performed in 2011. The recommended assumptions as a result of this experience study were adopted by the Budget and Control Board in November 2011. All the assumptions and methods adopted by the Budget and Control Board satisfy the requirements in the Actuarial Standards of Practice that are applicable for actuarial valuations of public retirement systems. The next experience study will be conducted using the plan's experience for the five-year period ending June 30, 2015, and presented to the Board in early 2016.

It is our opinion that the actuarial assumptions used to perform this valuation are internally consistent and reasonably reflect the anticipated future experience of the System.

The results of the actuarial valuation are dependent on the actuarial assumptions used. Actual results can, and almost certainly will, differ as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution rate, and funding periods. The actuarial calculations are intended to provide information for rational decision making.

The benefit structure is outlined in this section of the annual report. GRS prepared the following schedules in the actuarial section: *Actuarial Balance Sheet, Results of the Valuation as of July 1, 2014, Summary of Actuarial Assumptions and Methods, Development of the Actuarial Value of Assets, Solvency Test*, and the *Reconciliation of the UAAL*. GRS also prepared the following trend information in the actuarial section for years on and after July 1, 2011: *Summary of Historical Active Membership, Schedule of Retirants Added to and Removed from Rolls*, and the *Schedule of Funding Progress*.

South Carolina PEBA relied upon the data prepared by GRS and included in the actuarial valuations for each system to prepare the following schedules and graphs found in the actuarial section: *Summary of Active Membership Data, Summary of Membership Data and Funding Progress and Funding Ratios*. In addition, GRS prepared the following schedules in the financial section in accordance with GASB Statement No. 67: *Net Pension Liability Schedule, Discount Rate Sensitivity Analysis, Schedule of Changes in the Employers' Net Pension Liability, Schedule of Employers' Net Pension Liability*, and the *Schedule of Employers' Contributions*.

Gabriel Roeder Smith & Company

Data

Member data for retired, active and inactive members was supplied as of July 1, 2014, by the PEBA staff. The staff also supplied asset information as of July 1, 2014 (and as of June 30, 2015 for purposes of calculating information in accordance with GASB Statement No. 67). We did not audit this data, but we did apply a number of tests to the data, and we concluded that it was reasonable and consistent with the prior year's data. GRS is not responsible for the accuracy or completeness of the information provided to us by the Systems.

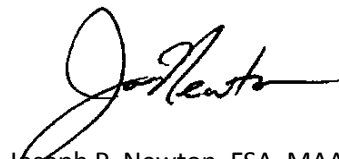
Certification

We certify that the information presented herein is accurate and fairly portrays the actuarial position of the Retirement Systems as of July 1, 2014. All of our work conforms with generally accepted actuarial principles and practices, and in conformity with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of South Carolina Code of Laws and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board.

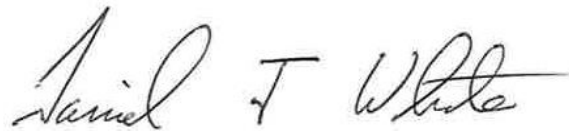
The undersigned are independent actuaries and consultants. Mr. Newton and Mr. White are Enrolled Actuaries and Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries. Both are experienced in performing valuations for large public retirement systems.

Sincerely,

Gabriel, Roeder, Smith & Co.



Joseph P. Newton, FSA, MAAA, EA
Senior Consultant



Daniel J. White, FSA, MAAA, EA
Senior Consultant

Gabriel Roeder Smith & Company

South Carolina Retirement System

Actuarial Balance Sheet

(Amounts expressed in thousands)

	<u>July 1, 2014</u>	<u>July 1, 2013</u>
1. Assets		
a. Current assets (actuarial value)		
i. Employee annuity savings fund	\$ 6,717,327	\$ 6,491,895
ii. Employer annuity accumulation fund	<u>20,193,413</u>	<u>19,261,173</u>
iii. Total current assets	\$ 26,910,740	\$ 25,753,068
b. Present value of future member contributions	\$ 5,040,382	\$ 4,970,944
c. Present value of future employer contributions		
i. Normal contributions	\$ 818,004	\$ 906,655
ii. Accrued liability contributions	<u>15,978,874</u>	<u>15,442,994</u>
iii. Total future employer contributions	\$ 16,796,878	\$ 16,349,649
d. Total assets	<u>\$ 48,748,000</u>	<u>\$ 47,073,661</u>
2. Liabilities		
a. Employee annuity savings fund		
i. Past member contributions	\$ 6,717,327	\$ 6,491,895
ii. Present value of future member contributions	<u>5,040,382</u>	<u>4,970,944</u>
iii. Total contributions to employee annuity savings fund	\$ 11,757,709	\$ 11,462,839
b. Employer annuity accumulation fund		
i. Benefits currently in payment	\$ 27,942,644	\$ 26,548,472
ii. Benefits to be provided to other members	<u>9,047,647</u>	<u>9,062,350</u>
iii. Total benefits payable from employer annuity accumulation fund	\$ 36,990,291	\$ 35,610,822
c. Total liabilities	<u>\$ 48,748,000</u>	<u>\$ 47,073,661</u>

Police Officers Retirement System

Actuarial Balance Sheet

(Amounts expressed in thousands)

	<u>July 1, 2014</u>	<u>July 1, 2013</u>
1. Assets		
a. Current assets (actuarial value)		
i. Employee annuity savings fund	\$ 850,383	\$ 793,414
ii. Employer annuity accumulation fund	<u>3,254,925</u>	<u>3,128,627</u>
iii. Total current assets	\$ 4,105,308	\$ 3,922,041
b. Present value of future member contributions	\$ 702,264	\$ 696,270
c. Present value of future employer contributions		
i. Normal contributions	\$ 436,423	\$ 411,046
ii. Accrued liability contributions	<u>1,800,520</u>	<u>1,741,715</u>
iii. Total future employer contributions	\$ 2,236,943	\$ 2,152,761
d. Total assets	<u><u>\$ 7,044,515</u></u>	<u><u>\$ 6,771,072</u></u>
2. Liabilities		
a. Employee annuity savings fund		
i. Past member contributions	\$ 850,383	\$ 793,414
ii. Present value of future member contributions	<u>702,264</u>	<u>696,270</u>
iii. Total contributions to employee annuity savings fund	\$ 1,552,647	\$ 1,489,684
b. Employer annuity accumulation fund		
i. Benefits currently in payment	\$ 3,490,161	\$ 3,385,496
ii. Benefits to be provided to other members	<u>2,001,707</u>	<u>1,895,892</u>
iii. Total benefits payable from employer annuity accumulation fund	\$ 5,491,868	\$ 5,281,388
c. Total liabilities	<u><u>\$ 7,044,515</u></u>	<u><u>\$ 6,771,072</u></u>

General Assembly Retirement System

Actuarial Balance Sheet

(Amounts expressed in thousands)

	<u>July 1, 2014</u>	<u>July 1, 2013</u>
1. Assets		
a. Current Assets (Actuarial Value)		
i. Employee annuity savings fund	\$ 7,358	\$ 7,164
ii. Employer annuity accumulation fund	<u>30,288</u>	<u>30,869</u>
iii. Total current assets	\$ 37,646	\$ 38,033
b. Present Value of Future Member Contributions ¹	\$ 1,841	\$ 1,957
c. Present Value of Future Employer Contributions		
i. Normal contributions	\$ 1,350	\$ 1,477
ii. Accrued liability contributions	<u>36,868</u>	<u>37,606</u>
iii. Total future employer contributions	\$ 38,218	\$ 39,083
d. Total Assets	<u>\$ 77,705</u>	<u>\$ 79,073</u>
2. Liabilities		
a. Employee Annuity Savings Fund		
i. Past member contributions	\$ 7,358	\$ 7,164
ii. Present value of future member contributions ¹	<u>1,841</u>	<u>1,957</u>
iii. Total contributions to employee annuity savings fund	\$ 9,199	\$ 9,121
b. Employer Annuity Accumulation Fund		
i. Benefits currently in payment	\$ 58,099	\$ 59,592
ii. Benefits to be provided to other members	<u>10,407</u>	<u>10,360</u>
iii. Total benefits payable from employer annuity accumulation fund	\$ 68,506	\$ 69,952
c. Total Liabilities	<u>\$ 77,705</u>	<u>\$ 79,073</u>

¹ Includes expected contributions from special contributors.

Judges and Solicitors Retirement System

Actuarial Balance Sheet

(Amounts expressed in thousands)

	<u>July 1, 2014</u>	<u>July 1, 2013</u>
1. Assets		
a. Current Assets (Actuarial Value)		
i. Employee annuity savings fund	\$ 22,926	\$ 21,369
ii. Employer annuity accumulation fund	<u>129,913</u>	<u>126,279</u>
iii. Total current assets	\$ 152,839	\$ 147,648
b. Present Value of Future Member Contributions	\$ 14,257	\$ 13,640
c. Present Value of Future Employer Contributions		
i. Normal contributions	\$ 24,043	\$ 22,411
ii. Accrued liability contributions	<u>111,454</u>	<u>109,340</u>
iii. Total future employer contributions	\$ 135,497	\$ 131,751
d. Total Assets	<u>\$ 302,593</u>	<u>\$ 293,039</u>
2. Liabilities		
a. Employee Annuity Savings Fund		
i. Past member contributions	\$ 22,926	\$ 21,369
ii. Present value of future member contributions	<u>14,257</u>	<u>13,640</u>
iii. Total contributions to employee annuity savings fund	\$ 37,183	\$ 35,009
b. Employer Annuity Accumulation Fund		
i. Benefits currently in payment	\$ 184,625	\$ 178,526
ii. Benefits to be provided to other members	<u>80,785</u>	<u>79,504</u>
iii. Total benefits payable from employer annuity accumulation fund	\$ 265,410	\$ 258,030
c. Total Liabilities	<u>\$ 302,593</u>	<u>\$ 293,039</u>

South Carolina National Guard Supplemental Retirement Plan

Actuarial Balance Sheet

(Amounts expressed in thousands)

	<u>July 1, 2014</u>	<u>July 1, 2013</u>
1. Assets		
a. Current Assets (Actuarial Value)	\$ 24,029	\$ 22,208
b. Present Value of Future Member Contributions	0	0
c. Present Value of Future Employer Contributions		
i. Normal contributions	\$ 6,160	\$ 6,100
ii. Accrued liability contributions	38,071	39,368
iii. Total future employer contributions	\$ 44,231	\$ 45,468
d. Total Assets	<u>\$ 68,260</u>	<u>\$ 67,676</u>
2. Liabilities		
a. Benefits to be Paid to Retired Members	\$ 33,739	\$ 33,590
b. Benefits to be Paid to Former Members Entitled to Deferred Pensions	11,158	11,742
c. Benefits to be Paid to Current Active Members	23,363	22,344
d. Total Liabilities	<u>\$ 68,260</u>	<u>\$ 67,676</u>

South Carolina Retirement System

Results of the Valuation as of July 1, 2014

(Amounts expressed in thousands)

	<u>July 1, 2014</u>
1. Actuarial Present Value of Future Benefits	
a. Present retired members and beneficiaries	\$ 27,942,644
b. Present active and inactive members	20,805,356
c. Total actuarial present value	\$ 48,748,000
2. Present Value of Future Normal Contributions	
a. Employee	\$ 5,040,382
b. Employer	818,004
c. Total future normal contributions	\$ 5,858,386
3. Actuarial Liability	\$ 42,889,614
4. Current Actuarial Value of Assets	\$ 26,910,740
5. Unfunded Actuarial Liability	\$ 15,978,874
6. UAAL Amortization Rates Based on an Employer Contribution Rate of 11.06%¹	
a. Active members	9.35%
b. TERI members (including employee contributions)	19.22%
c. ORP members	6.06%
d. Re-employed members (including employee contributions)	19.22%
7. Unfunded Actuarial Liability Liquidation Period	30 years

¹ The employer contribution rate includes the cost of incidental death benefits.

Police Officers Retirement System

Results of the Valuation as of July 1, 2014

(Amounts expressed in thousands)

	<u>July 1, 2014</u>
1. Actuarial Present Value of Future Benefits	
a. Present retired members and beneficiaries	\$ 3,490,161
b. Present active and inactive members	3,554,354
c. Total actuarial present value	<u>\$ 7,044,515</u>
2. Present Value of Future Normal Contributions	
a. Member	\$ 702,264
b. Employer	436,423
c. Total future normal contributions	<u>\$ 1,138,687</u>
3. Actuarial Liability	\$ 5,905,828
4. Current Actuarial Value of Assets	\$ 4,105,308
5. Unfunded Actuarial Liability	\$ 1,800,520
6. Unfunded Actuarial Liability Rate in Effect for FY 2017¹	8.17%
7. Unfunded Actuarial Liability Liquidation Period	27 years

¹ The employer contribution rate includes the cost of accidental and incidental death benefits.

General Assembly Retirement System

Results of the Valuation as of July 1, 2014

(Amounts expressed in thousands)

	<u>July 1, 2014</u>
1. Actuarial Present Value of Future Benefits	
a. Present retired members and beneficiaries	\$ 58,099
b. Present active and inactive members	19,606
c. Total actuarial present value	\$ 77,705
2. Present Value of Future Normal Contributions	
a. Employee	\$ 1,841
b. Employer	1,350
c. Total future normal contributions	\$ 3,191
3. Actuarial Liability	\$ 74,514
4. Current Actuarial Value of Assets	\$ 37,646
5. Unfunded Actuarial Liability	\$ 36,868
6. Unfunded Actuarial Liability Liquidation Period from the Valuation Date	13 years

Judges and Solicitors Retirement System

Results of the Valuation as of July 1, 2014

(Amounts expressed in thousands)

	July 1, 2014
1. Actuarial Present Value of Future Benefits	
a. Present retired members and beneficiaries	\$ 184,625
b. Present active and inactive members	117,968
c. Total actuarial present value	\$ 302,593
2. Present Value of Future Normal Contributions	
a. Employee	\$ 14,257
b. Employer	24,043
c. Total future normal contributions	\$ 38,300
3. Actuarial Liability	\$ 264,293
4. Current Actuarial Value of Assets	\$ 152,839
5. Unfunded Actuarial Liability	\$ 111,454
6. UAAL Amortization Rates Based on a 47.97% Employer Contribution Rate¹	
a. Active members	30.30%
b. DROP and Retired-in-Place Members (including employee contributions)	57.97%
7. Unfunded Actuarial Liability Liquidation Period	28 Years

¹ The employer contribution rate includes the cost of incidental death benefits.

South Carolina National Guard Supplemental Retirement Plan

Results of the Valuation as of July 1, 2014

(Amounts expressed in thousands)

	<u>July 1, 2014</u>
1. Actuarial Present Value of Future Benefits	
a. Present Retired Members and Beneficiaries	\$ 33,739
b. Present Active and Inactive Members	34,521
c. Total Actuarial Present Value	\$ 68,260
2. Present Value of Future Normal Contributions	
a. Employee	\$ 0
b. Employer	6,160
c. Total Future Normal Contributions	\$ 6,160
3. Actuarial Liability	\$ 62,100
4. Current Actuarial Value of Assets	\$ 24,029
5. Unfunded Actuarial Liability	\$ 38,071
6. Unfunded Actuarial Liability Liquidation Period (blended)	18 years

South Carolina Retirement System

Summary of Actuarial Methods and Assumptions

Based on recommendations from the consulting actuary, the Budget and Control Board and the PEBA Board are responsible for adopting all actuarial methods and assumptions used in the annual actuarial valuations, except for the investment rate of return. Retirement reform legislation enacted in 2012 set the rate at 7.5 percent effective July 1, 2012 and requires that the assumed annual rate of return on investments be established by the General Assembly. South Carolina State Statute also requires that an experience analysis that reviews the economic and demographic assumptions be performed every five years. As a result of the most recently completed experience analysis for the five year period ended June 30, 2010, the Boards adopted a number of changes in the actuarial assumptions which were adopted and utilized beginning with the July 1, 2011 annual valuations. In addition, the rates of retirement and disability incidence were subsequently modified as of July 1, 2012 to better model expected future mortality experience as a result of the pension reform bill enacted in 2012.

The following presents a summary of the actuarial assumptions and methods used in the valuation of the South Carolina Retirement System for funding purposes and financial reporting purposes.

Investment Rate of Return

Assumed annual rate of 7.5 percent net of investment and administrative expenses composed of a 2.75 percent inflation component and a 4.75 percent real rate of return, net of investment and administration expenses.

Rates of Annual Salary Increase

Rates of annual salary increase are assumed to vary for the first 19 years of service due to expected merit and promotional increases which differs by employee group. Beginning with the 20th year of service, the assumed annual rate of increase is 3.5 percent for both groups and for all future years of service.

The 3.5 percent rate of the increase is composed of a 2.75 percent inflation component and a 0.75 percent real rate of wage increase (productivity) component.

Active Male and Female Salary Increase Rate

Years of Service	General Employees		Teachers	
	Annual Promotional/Longevity Rates of Increase	Total Annual Rate of Increase Including 3.5% Wage Inflation	Annual Promotional/Longevity Rates of Increase	Total Annual Rate of Increase Including 3.5% Wage Inflation
0	2.50%	6.00%	4.00%	7.50%
1	2.50%	6.00%	9.00%	12.50%
2	2.00%	5.50%	3.00%	6.50%
3	1.50%	5.00%	2.75%	6.25%
4	1.25%	4.75%	2.50%	6.00%
5	1.00%	4.50%	2.25%	5.75%
6	0.75%	4.25%	2.00%	5.50%
7	0.50%	4.00%	1.75%	5.25%
8	0.50%	4.00%	1.75%	5.25%
9	0.25%	3.75%	1.50%	5.00%
10	0.25%	3.75%	1.50%	5.00%
11	0.25%	3.75%	1.50%	5.00%
12	0.25%	3.75%	1.25%	4.75%
13	0.25%	3.75%	1.00%	4.50%
14	0.00%	3.50%	1.00%	4.50%
15	0.00%	3.50%	1.00%	4.50%
16	0.00%	3.50%	0.75%	4.25%
17	0.00%	3.50%	0.50%	4.00%
18	0.00%	3.50%	0.25%	3.75%
19	0.00%	3.50%	0.25%	3.75%
20+	0.00%	3.50%	0.00%	3.50%

Active Member Decrement Rates

- a. Assumed rate of Service Retirement or TERI entry are shown in the following tables. The first table is for members who attain age 65 before attaining 28 years of service. The second table is based on service and is for Class Two members who attain 28 years of service before age 65. The retirement rates shown in the table below for Class Two members commencing a reduced retirement are also applicable to Class Three members who are at least age 60, but have not satisfied the age and service requirements for an unreduced benefit.

Annual Age Based Retirement Rates

Members	Class Two								Class Three
Age	General Employees				Teachers				Rule of 90
	Reduced		Normal ¹		Reduced		Normal ¹		
	Male	Female	Male	Female	Male	Female	Male	Female	
55	4%	4%	0%	0%	2%	2%	0%	0%	20%
56	4%	4%	0%	0%	2%	2%	0%	0%	20%
57	4%	4%	0%	0%	2%	2%	0%	0%	20%
58	4%	4%	0%	0%	2%	2%	0%	0%	20%
59	4%	4%	0%	0%	2%	2%	0%	0%	20%
60	5%	7%	0%	0%	5%	6%	0%	0%	20%
61	5%	7%	0%	0%	6%	6%	0%	0%	20%
62	14%	13%	0%	0%	12%	11%	0%	0%	20%
63	10%	13%	0%	0%	12%	10%	0%	0%	20%
64	10%	13%	0%	0%	9%	10%	0%	0%	20%
65	0%	0%	20%	22%	0%	0%	20%	25%	20%
66	0%	0%	20%	22%	0%	0%	20%	25%	20%
67	0%	0%	17%	19%	0%	0%	20%	20%	20%
68	0%	0%	17%	19%	0%	0%	20%	20%	20%
69	0%	0%	17%	19%	0%	0%	20%	20%	20%
70	0%	0%	17%	19%	0%	0%	20%	20%	20%
71	0%	0%	17%	19%	0%	0%	20%	20%	20%
72	0%	0%	17%	19%	0%	0%	20%	20%	20%
73	0%	0%	17%	19%	0%	0%	20%	20%	20%
74	0%	0%	17%	19%	0%	0%	20%	20%	20%
75	0%	0%	100%	100%	0%	0%	100%	100%	100%

¹Retirement rate is 50% at the later of age 62 or when the member is first eligible for a normal retirement benefit (i.e. the first age the member is eligible to concurrently commence benefits and continue employment).

Annual Service Based Retirement Rates¹

Class Two Members				
Years of Service	General Employees		Teachers	
	Male	Female	Male	Female
28	15%	18%	8%	5%
29	10%	10%	7%	8%
30	10%	10%	8%	9%
31	10%	10%	8%	9%
32	10%	10%	9%	10%
33	18%	20%	10%	11%
34	18%	20%	11%	12%
35	18%	20%	12%	18%
36	20%	20%	13%	18%
37	20%	20%	14%	18%
38	20%	20%	18%	18%
39	20%	20%	17%	19%
40	100%	100%	17%	20%
41	100%	100%	100%	100%
42	100%	100%	100%	100%
43	100%	100%	100%	100%
44	100%	100%	100%	100%
45	100%	100%	100%	100%
46	100%	100%	100%	100%
47	100%	100%	100%	100%
48	100%	100%	100%	100%

¹Retirement rate is 50% at the later of age 62 or when the member is first eligible for a normal retirement benefit (i.e. the first age the member is eligible to concurrently commence benefits and continue employment).

b. Assumed rates of disability are shown in the following table.

Disability Rates

Age	General Employees		Teachers	
	Male	Female	Male	Female
25	0.0504%	0.0464%	0.0419%	0.0458%
30	0.1008%	0.0650%	0.0629%	0.0616%
35	0.1512%	0.1299%	0.0838%	0.0616%
40	0.2520%	0.1670%	0.1572%	0.1074%
45	0.3528%	0.2413%	0.2620%	0.2200%
50	0.5040%	0.4083%	0.4192%	0.3520%
55	0.8064%	0.6496%	0.6812%	0.5720%
60	1.0080%	0.9930%	1.0480%	0.8800%
64	1.2600%	1.3827%	1.3100%	1.1000%

c. Active Member Mortality

Rates of active member mortality are based upon a client specific table with applicable multipliers to match the experience.

Active Mortality Rates (Multiplier Applied)

Age	General Employees		Teachers	
	Male	Female	Male	Female
25	0.0414%	0.0166%	0.0432%	0.0145%
30	0.0488%	0.0211%	0.0511%	0.0185%
35	0.0850%	0.0380%	0.0889%	0.0333%
40	0.1187%	0.0565%	0.1241%	0.0494%
45	0.1659%	0.0899%	0.1734%	0.0787%
50	0.2352%	0.1341%	0.2459%	0.1173%
55	0.3332%	0.2021%	0.3483%	0.1768%
60	0.5366%	0.3145%	0.5610%	0.2752%
64	0.7731%	0.4343%	0.8082%	0.3800%
Multiplier	110%	80%	115%	70%

d. Rates of Withdrawal

Rate of withdrawal for active members prior to eligibility for retirement are for each employee group and differ by gender and service. Sample rates are shown in the following tables.

Withdrawal Rates - Male General Employees

Age	Years of Service														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
25	0.329	0.247	0.190	0.155	0.134	0.117	0.096	0.078	0.065	0.059	0.066	0.000	0.000	0.000	0.000
30	0.294	0.221	0.173	0.142	0.124	0.109	0.095	0.082	0.070	0.060	0.053	0.047	0.044	0.042	0.039
35	0.268	0.200	0.155	0.129	0.112	0.101	0.092	0.082	0.072	0.059	0.042	0.047	0.044	0.042	0.039
40	0.246	0.180	0.138	0.114	0.100	0.092	0.086	0.079	0.069	0.055	0.033	0.042	0.042	0.042	0.039
45	0.226	0.164	0.123	0.100	0.088	0.082	0.078	0.073	0.064	0.049	0.027	0.039	0.036	0.034	0.032
50	0.208	0.150	0.111	0.089	0.077	0.072	0.068	0.063	0.055	0.042	0.022	0.029	0.029	0.029	0.029
55	0.194	0.141	0.104	0.081	0.069	0.060	0.054	0.049	0.042	0.033	0.021	0.020	0.020	0.020	0.020
60	0.183	0.135	0.100	0.077	0.063	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Age	Years of Service (Continued)														
	15	16	17	18	19	20	21	22	23	24	25	26	27	28+	
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
30	0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
35	0.036	0.034	0.032	0.029	0.027	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
40	0.036	0.034	0.032	0.029	0.027	0.025	0.023	0.022	0.020	0.018	0.017	0.000	0.000	0.000	
45	0.029	0.029	0.029	0.029	0.027	0.025	0.023	0.022	0.020	0.018	0.017	0.016	0.014	0.000	
50	0.029	0.027	0.025	0.023	0.022	0.020	0.020	0.020	0.020	0.018	0.017	0.016	0.014	0.000	
55	0.020	0.020	0.020	0.020	0.020	0.020	0.018	0.017	0.016	0.014	0.000	0.000	0.000	0.000	
60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Withdrawal Rates - Female General Employees

Age	Years of Service														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
25	0.298	0.246	0.206	0.177	0.156	0.128	0.125	0.116	0.109	0.103	0.094	0.000	0.000	0.000	0.000
30	0.271	0.224	0.186	0.159	0.140	0.125	0.115	0.106	0.097	0.085	0.069	0.052	0.049	0.045	0.042
35	0.251	0.202	0.166	0.141	0.124	0.113	0.104	0.096	0.086	0.071	0.051	0.052	0.049	0.045	0.042
40	0.233	0.180	0.145	0.123	0.110	0.101	0.093	0.085	0.075	0.059	0.037	0.045	0.045	0.045	0.042
45	0.217	0.162	0.127	0.108	0.097	0.089	0.082	0.075	0.064	0.049	0.028	0.042	0.039	0.036	0.033
50	0.204	0.149	0.115	0.097	0.086	0.079	0.071	0.064	0.054	0.041	0.023	0.030	0.030	0.030	0.030
55	0.195	0.143	0.109	0.089	0.078	0.069	0.061	0.053	0.044	0.035	0.024	0.020	0.020	0.020	0.020
60	0.187	0.141	0.108	0.085	0.070	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Age	Years of Service (Continued)														
	15	16	17	18	19	20	21	22	23	24	25	26	27	28+	
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
30	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
35	0.039	0.036	0.033	0.030	0.028	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
40	0.039	0.036	0.033	0.030	0.028	0.025	0.023	0.022	0.020	0.018	0.017	0.000	0.000	0.000	
45	0.030	0.030	0.030	0.030	0.028	0.025	0.023	0.022	0.020	0.018	0.017	0.016	0.015	0.000	
50	0.030	0.028	0.025	0.023	0.022	0.020	0.020	0.020	0.020	0.018	0.017	0.016	0.015	0.000	
55	0.020	0.020	0.020	0.020	0.020	0.020	0.018	0.017	0.016	0.015	0.000	0.000	0.000	0.000	
60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Withdrawal Rates - Male Teachers

Age	Years of Service														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
25	0.296	0.203	0.138	0.097	0.072	0.058	0.051	0.051	0.052	0.054	0.056	0.000	0.000	0.000	0.000
30	0.272	0.192	0.136	0.099	0.078	0.066	0.061	0.058	0.054	0.048	0.039	0.027	0.026	0.025	0.025
35	0.253	0.182	0.132	0.099	0.081	0.071	0.066	0.061	0.054	0.043	0.027	0.027	0.026	0.025	0.025
40	0.237	0.173	0.127	0.098	0.082	0.073	0.068	0.062	0.053	0.039	0.020	0.025	0.025	0.025	0.025
45	0.224	0.165	0.123	0.096	0.081	0.073	0.067	0.060	0.050	0.036	0.017	0.025	0.024	0.023	0.023
50	0.214	0.159	0.119	0.094	0.079	0.070	0.063	0.055	0.046	0.034	0.017	0.022	0.022	0.022	0.022
55	0.206	0.155	0.117	0.091	0.074	0.065	0.056	0.048	0.040	0.032	0.022	0.017	0.017	0.017	0.017
60	0.200	0.152	0.114	0.087	0.067	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Age	Years of Service (Continued)														
	15	16	17	18	19	20	21	22	23	24	25	26	27	28+	
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
30	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
35	0.024	0.023	0.023	0.022	0.021	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
40	0.024	0.023	0.023	0.022	0.021	0.020	0.019	0.018	0.017	0.015	0.014	0.000	0.000	0.000	
45	0.022	0.022	0.022	0.022	0.021	0.020	0.019	0.018	0.017	0.015	0.014	0.012	0.009	0.000	
50	0.022	0.021	0.020	0.019	0.018	0.017	0.017	0.017	0.017	0.015	0.014	0.012	0.009	0.000	
55	0.017	0.017	0.017	0.017	0.017	0.017	0.015	0.014	0.012	0.009	0.000	0.000	0.000	0.000	
60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Withdrawal Rates – Female Teachers

Age	Years of Service														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
25	0.230	0.161	0.121	0.101	0.089	0.084	0.083	0.080	0.073	0.066	0.060	0.000	0.000	0.000	0.000
30	0.227	0.166	0.126	0.101	0.088	0.080	0.075	0.070	0.062	0.053	0.043	0.032	0.030	0.028	0.026
35	0.217	0.160	0.121	0.097	0.083	0.075	0.068	0.062	0.054	0.043	0.030	0.032	0.030	0.028	0.026
40	0.204	0.148	0.111	0.088	0.076	0.068	0.062	0.055	0.048	0.037	0.021	0.028	0.028	0.028	0.026
45	0.193	0.136	0.100	0.080	0.068	0.062	0.056	0.050	0.044	0.033	0.016	0.026	0.024	0.023	0.021
50	0.187	0.130	0.094	0.074	0.063	0.057	0.052	0.048	0.042	0.032	0.015	0.020	0.020	0.020	0.020
55	0.188	0.131	0.094	0.073	0.063	0.054	0.051	0.047	0.042	0.033	0.019	0.013	0.013	0.013	0.013
60	0.195	0.138	0.099	0.076	0.066	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Age	Years of Service (Continued)														
	15	16	17	18	19	20	21	22	23	24	25	26	27	28+	
25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
30	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
35	0.024	0.023	0.021	0.020	0.018	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
40	0.024	0.023	0.021	0.020	0.018	0.017	0.015	0.014	0.013	0.011	0.010	0.000	0.000	0.000	
45	0.020	0.020	0.020	0.020	0.018	0.017	0.015	0.014	0.013	0.011	0.010	0.009	0.008	0.000	
50	0.020	0.018	0.017	0.015	0.014	0.013	0.013	0.013	0.013	0.011	0.010	0.009	0.008	0.000	
55	0.013	0.013	0.013	0.013	0.013	0.013	0.011	0.010	0.009	0.008	0.000	0.000	0.000	0.000	
60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Post Retirement Mortality

a. Healthy Retirees and Beneficiaries

The valuation assumes fully generational mortality. The base mortality table used is the RP-2000 Mortality Table (Public School District Employees utilize the White Collar adjustment), adjusted by multipliers documented in the table below. Future mortality improvements are assumed each year using Scale AA. The following are sample rates:

Nondisabled Annuitant Mortality Rates before Projection (Multiplier Applied)

Age	General Employees		Teachers	
	Males	Females	Males	Females
50	0.2138%	0.1508%	0.2176%	0.1510%
55	0.3624%	0.2445%	0.3632%	0.2457%
60	0.6747%	0.4550%	0.6141%	0.4443%
65	1.2737%	0.8735%	1.2167%	0.8218%
70	2.2206%	1.5068%	2.1203%	1.4426%
75	3.7834%	2.5295%	3.6997%	2.4431%
80	6.4368%	4.1291%	6.5353%	4.0926%
85	11.0757%	6.9701%	11.5132%	7.0483%
90	18.3408%	11.8514%	19.6100%	11.9843%
Multiplier	100%	90%	110%	95%

The table on the following page provides the life expectancy for individuals retiring in future years based on the assumption with full generational projection:

Life Expectancy for an Age 65 Retiree in Years

Employee type	Year of retirement			
	2015	2020	2025	2030
General Employee - Male	19.6	20.0	20.4	20.7
General Employee - Female	22.3	22.5	22.7	22.9
Teacher - Male	19.5	19.9	20.3	20.6
Teacher - Female	22.4	22.6	22.8	22.9

- b. A separate table of mortality rates is used for disabled retirees based on the RP-2000 Disabled Retiree Mortality Table. The following are sample rates:

Disabled Annuitant Mortality Rates (Multiplier Applied)

Age	General Employees		Teachers	
	Males	Females	Males	Females
50	2.4629%	1.2689%	2.1731%	1.2689%
55	3.0126%	1.8198%	2.6581%	1.8198%
60	3.5736%	2.4023%	3.1531%	2.4023%
65	4.2648%	3.0829%	3.7631%	3.0829%
70	5.3196%	4.1398%	4.6937%	4.1398%
75	6.9757%	5.7453%	6.1550%	5.7453%
80	9.2966%	7.9543%	8.2029%	7.9543%
85	12.0363%	11.0223%	10.6202%	11.0223%
90	15.5897%	15.4054%	13.7556%	15.4054%
Multiplier	85%	110%	75%	110%

Asset Valuation Method

The actuarial value of assets is based on the market value of assets with five-year smoothing applied. This is accomplished by recognizing each year 20 percent of the difference between the market value of assets and the expected actuarial value of assets, based upon the assumed valuation rate of return.

Expected earnings are determined using the assumed investment rate of return and the beginning of year actuarial value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of administrative and investment expenses.

Actuarial Cost Method

The Entry Age Normal actuarial cost method allocates the System's actuarial present value of future benefits to various periods based upon service. The portion of the present value of future benefits allocated to years of service prior to the valuation date is the actuarial accrued liability, and the portion allocated to years following the valuation date is the present value of future normal costs. The normal cost is determined for each active member as the level percent of payroll necessary to fully fund the expected benefits to be earned over the career of each individual active member. The normal cost is partially funded with active member contributions with the remainder funded by employer contributions.

An unfunded accrued liability exists in the amount equal to the excess of accrued liability over valuation assets. The amortization period of the System is the number of years required to fully amortize the unfunded accrued

liability with the expected amount of employer contributions in excess of the employers' portion of the normal cost.

The calculation of the amortization period takes into account scheduled increases to contribution rates applicable to future years and payroll growth. Also, the calculation of the amortization period reflects additional contributions the System receives with respect to post July 1, 2005, TERI participants, ORP participants and return to work retirees. These contributions are assumed to grow at the same payroll growth rate as for active SCRS employees. It is assumed that amortization payments are made monthly at the end of the month.

Unused Annual Leave

To account for the effect of unused annual leave in Annual Final Compensation (AFC) of Class Two members, the AFC for Class Two members is increased 2.14 percent at their date of retirement.

Unused Sick Leave

To account for the effect of unused sick leave on credited service for Class Two members, the service of active Class Two members who retire is increased three months.

Future Post-Retirement Benefit Adjustments

Benefits are assumed to increase by the lesser of 1 percent annually or \$500 beginning on the July 1 following the receipt of 12 monthly benefit payments. The \$500 limit in the annual increase is not indexed to escalate in future years.

Payroll Growth Rate

The total annual payroll of active members (also applies to TERI, ORP and rehired retiree participants) is assumed to increase at an annual rate of 3.5 percent. This rate represents the underlying expected annual rate of wage inflation and does not anticipate increases in the number of members.

Other Assumptions

1. Valuation payroll (used for determining the amortization contribution rate): Prior fiscal year payroll projected forward one year using the overall payroll growth rate. This was determined separately for TERI, and return to work employees by dividing the actual member contributions received during the prior fiscal year by the member contribution rate in effect for that year, and then projecting that amount forward one year.
2. Individual salaries used to project benefits: Actual salaries from the past fiscal year are used to determine the final average salary as of the valuation date. For future salaries, the salary from the last fiscal year is projected forward with one year's salary scale.
3. Pay increase timing: Beginning of (fiscal) year. This is equivalent to assuming that reported salaries represent amounts paid to members during the year ended on the valuation date.
4. Percent married: 100 percent of male and 100 percent of female employees are assumed to be married.
5. Age difference: Males are assumed to be three years older than their spouses.
6. Percent electing annuity on death (when eligible): All of the spouses of vested, married participants are assumed to elect an immediate life annuity.
7. Inactive Population: All non-vested members are assumed to take an immediate refund. Members with a vested benefit are assumed to elect a refund or a deferred benefit commencing at age 65, whichever is more valuable at the valuation date.
8. There will be no recoveries once disabled.

9. Decrement timing: Decrements of all types are assumed to occur mid-year.
10. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
11. Decrement relativity: Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
12. Incidence of Contributions: Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
13. Benefit Service: All members are assumed to accrue one year of eligibility service each year.
14. All calculations were performed without regard to the compensation limit in IRC Section 401(a)(17) and the benefit limit under IRC Section 415.

Participant Data

Participant data was supplied in electronic text files. There were separate files for (i) active and inactive members and (ii) members and beneficiaries receiving benefits.

The data for active members included birth date, gender, service with the current city and total vesting service, salary and employee contribution account balances. For retired members and beneficiaries, the data included date of birth, gender, spouse's date of birth (where applicable), amount of monthly benefit, date of retirement and form of payment code.

Salary supplied for the current year was based on the annualized earnings for the year preceding the valuation date. Assumptions were made to correct for missing, bad or inconsistent data. These had no material impact on the results presented.

South Carolina Retirement System

Development of Actuarial Value of Assets

(Amounts expressed in thousands)

	<u>July 1, 2014</u>
1. Actuarial Value of Assets at the Prior Valuation Date	\$ 25,753,068
2. Market Value of Assets at the Prior Valuation Date	\$ 22,791,322
3. Net External Cash Flow During the Year	
a. Contributions	\$ 1,616,016
b. Disbursements	(2,574,106)
c. Subtotal	\$ (958,090)
4. Expected Net Investment Income at 7.50% Earned on:	
a. Actuarial value of assets at the prior valuation date	\$ 1,931,480
b. Contributions	60,601
c. Disbursements	(96,529)
d. Subtotal	\$ 1,895,552
5. Expected Actuarial Value of Assets, End of Year (Item 1 + Item 3c + Item 4d)	\$ 26,690,530
6. Market Value of Assets as of the Current Valuation Date Based on the Prior Year's Accounting Method for TERI	\$ 25,225,256
7. Difference Between Expected Actuarial Assets and Market Value of Assets (Item 6 - Item 5)	\$ (1,465,274)
8. Excess (Shortfall) Recognized (20% of Item 7)	\$ (293,055)
9. Actuarial Value of Plan Assets, End of Year, Before Reflecting Asset Accounting Change to Conform with GASB No. 67 (Item 5 + Item 8)	\$ 26,397,475
<i>Adjustment to Reflect Asset Accounting Change to Conform with GASB No. 67</i>	
10. Change in plan assets due to the change in asset accounting method for TERI to conform with GASB No. 67	\$ 513,265
11. Final Actuarial Value of Assets (Item 9 + Item 10)	\$ 26,910,740
12. Ratio of AVA to MVA	104.6%

Police Officers Retirement System

Summary of Actuarial Methods and Assumptions

Based on recommendations from the consulting actuary, the Budget and Control Board and the PEBA Board are responsible for adopting all actuarial methods and assumptions used in the annual actuarial valuations, except for the investment rate of return. Retirement reform legislation enacted in 2012 set the rate at 7.5 percent effective July 1, 2012 and requires that the assumed annual rate of return on investments be established by the General Assembly. South Carolina State Statute also requires that an experience analysis that reviews the economic and demographic assumptions be performed every five years. As a result of the most recently completed experience analysis for the five year period ended June 30, 2010, the Boards adopted a number of changes in the actuarial assumptions which were adopted and utilized beginning with the July 1, 2011 annual valuations. In addition, the rates of retirement and disability incidence were subsequently modified as of July 1, 2012 to better model expected future mortality experience as a result of the pension reform bill enacted in 2012.

The following presents a summary of the actuarial assumptions and methods used in the valuation of the South Carolina Police Officers Retirement System for funding purposes and financial reporting purposes.

Investment Rate of Return

Assumed annual rate of 7.5 percent net of investment and administrative expenses composed of a 2.75 percent inflation component and a 4.75 percent real rate of return, net of investment and administration expenses.

Rates of Annual Salary Increase

Rates of annual salary increase are assumed to vary for the first 11 years of service to include anticipated merit and promotional increases. The assumed annual rate of increase is 4 percent for all members with 12 or more years of service.

The 4 percent rate of increase is composed of a 2.75 percent inflation component and a 1.25 percent real rate of wage increase (productivity) component.

Active Male and Female Salary Increase Rate

Years of Service	PORS	
	Annual Promotional/Longevity Rates of Increase	Total Annual Rate of Increase Including 4.0% Wage Inflation
0	6.00%	10.00%
1	5.00%	9.00%
2	2.00%	6.00%
3	1.00%	5.00%
4	0.75%	4.75%
5	0.50%	4.50%
6	0.25%	4.25%
7	0.25%	4.25%
8	0.25%	4.25%
9	0.25%	4.25%
10	0.25%	4.25%
11	0.25%	4.25%
12	0.00%	4.00%
13	0.00%	4.00%
14	0.00%	4.00%
15	0.00%	4.00%
16	0.00%	4.00%
17	0.00%	4.00%
18	0.00%	4.00%
19	0.00%	4.00%
20+	0.00%	4.00%

Active Member Decrement Rates

- a. Assumed rates of Service Retirement are shown in the following tables. The first table is for members who attain age 55 before attaining 25 years of service (27 years of service for Class Three). The second table is based on service and is for members who attain 25 years of service before age 55.

Age	Annual Age Based Retirement Rates		Annual Service Based Retirement Rates ¹			
	PORS		Years of Service		PORS	
	Male	Female	Class Two	Class Three	Male	Female
55	20%	20%	25	27	18%	18%
56	14%	14%	26	28	13%	13%
57 ²	50%	50%	27	29	11%	11%
58	12%	12%	28	30	11%	11%
59	12%	12%	29	31	11%	11%
60	12%	12%	30	32	11%	11%
61	12%	12%	31	33	11%	11%
62	35%	35%	32	34	11%	11%
63	25%	25%	33	35	11%	11%
64	25%	25%	34	36	11%	11%
65	30%	30%	35	37	11%	11%
66	30%	30%	36	38	11%	11%
67	30%	30%	37	39	11%	11%
68	30%	30%	38	40	11%	11%
69	30%	30%	39	41	11%	11%
70	100%	100%	40	42	100%	100%
71	100%	100%				
72	100%	100%				
73	100%	100%				
74	100%	100%				
75	100%	100%				

¹Retirement rate is 50% at age 57, the first age the member is eligible to concurrently commence benefits and continue employment.

²Age first eligible to concurrently commence benefits and continue employment.

- b. Assumed rates of disability are shown in the following table. Twenty-five percent of disabilities are assumed to be duty-related.

Disability Rates

Age	PORS	
	Male	Female
25	0.1376%	0.1376%
30	0.1835%	0.1835%
35	0.3441%	0.3441%
40	0.4588%	0.4588%
45	0.6882%	0.6882%
50	0.8603%	0.8603%
55	0.0000%	0.0000%
60	0.0000%	0.0000%
64	0.0000%	0.0000%

c. Active Member Mortality

Rates of active member mortality are based upon a client specific table with applicable multipliers to match the experience.

Active Mortality Rates (Multiplier Applied)

Age	PORS	
	Male	Female
25	0.0338%	0.0186%
30	0.0653%	0.0264%
35	0.0978%	0.0467%
40	0.1234%	0.0790%
45	0.1614%	0.1248%
50	0.2171%	0.1767%
55	0.3776%	0.2516%
60	0.7443%	0.4454%
64	1.2430%	0.8222%
Multiplier	90%	90%

d. Rates of Withdrawal

Rates of withdrawal for active members prior to eligibility for retirement are based upon actual experience from 2002 through 2010. Rates are developed for each employee group and differ by gender and service. Sample rates are shown in the following table.

Annual Withdrawal Rate

Years of Service	PORS	
	Male	Female
0	0.2500	0.2500
1	0.1800	0.1800
2	0.1400	0.1400
3	0.1200	0.1200
4	0.1070	0.1070
5	0.0954	0.0954
6	0.0850	0.0850
7	0.0758	0.0758
8	0.0675	0.0675
9	0.0602	0.0602
10	0.0537	0.0537
11	0.0478	0.0478
12	0.0426	0.0426
13	0.0380	0.0380
14	0.0339	0.0339
15	0.0302	0.0302
16	0.0269	0.0269
17	0.0240	0.0240
18	0.0214	0.0214
19	0.0191	0.0191
20	0.0170	0.0170
21	0.0151	0.0151
22	0.0135	0.0135
23	0.0120	0.0120

e. Post Retirement Mortality

Healthy retirees and beneficiaries – This valuation assumes full generational mortality. The base mortality table is 115 percent of the RP-2000 Mortality Table with Blue Collar Adjustment. Future mortality improvements are assumed each year using Scale AA. The following are sample rates:

Nondisabled Annuitant Mortality Rates Before Projection (Multiplier applied)

Age	PORS	
	Male	Female
50	0.2774%	0.2257%
55	0.4825%	0.3214%
60	0.9511%	0.5691%
65	1.7870%	1.1958%
70	3.0772%	2.1429%
75	4.9601%	3.5521%
80	8.1129%	5.6296%
85	13.2339%	9.5565%
90	20.9021%	15.7189%
Multiplier	115%	115%

Life Expectancy for an Age 65 Retiree in Years

Member	Year of Retirement			
	2015	2020	2025	2030
Male	17.8	18.2	18.6	19.0
Female	19.7	19.9	20.1	20.4

A separate table of mortality rates is used for disabled retirees based on the RP-2000 Disabled Retiree Mortality Table. The following are sample rates:

Disabled Annuitant Mortality Rates (Multiplier applied)

Age	PORS	
	Male	Female
50	1.7385%	0.6921%
55	2.1265%	0.9926%
60	2.5225%	1.3103%
65	3.0104%	1.6816%
70	3.7550%	2.2581%
75	4.9240%	3.1338%
80	6.5623%	4.3387%
85	8.4962%	6.0122%
90	11.0045%	8.4029%
Multiplier	60%	60%

Asset Valuation Method

The actuarial value of assets is based on the market value of assets with five-year smoothing applied. This is accomplished by recognizing each year 20 percent of the difference between the market value of assets and the expected actuarial value of assets, based upon the assumed valuation rate of return.

Expected earnings are determined using the assumed investment rate of return and the beginning of year actuarial value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of administrative and investment expenses.

Actuarial Cost Method

The Entry Age Normal actuarial cost method allocates the plan's actuarial present value of future benefits to various periods based upon service. The portion of the present value of future benefits allocated to years of service prior to the valuation date is the actuarial accrued liability, and the portion allocated to years following the valuation date is the present value of future normal costs. The normal cost is determined for each active member as the level percent of payroll necessary to fully fund the expected benefits to be earned over the career of each individual active member. The normal cost is partially funded with active member contributions with the remainder funded by employer contributions.

An unfunded accrued liability exists in the amount equal to the excess of accrued liability over valuation assets. The amortization period of the System is the number of years required to fully amortize the unfunded accrued liability with the expected amount of employer contributions in excess of the employers' portion of the normal cost.

The calculation of the amortization period takes into account scheduled increases to contribution rates applicable to future years and payroll growth. Also, the calculation of the amortization period reflects additional contributions the System receives with respect to return to work retirees. These contributions are assumed to grow at the same payroll growth rate as for active employees. It is assumed that amortization payments are made monthly at the end of the month.

Unused Annual Leave

To account for the effect of unused annual leave in Average Final Compensation (AFC) of Class Two members, the AFC for Class Two members is increased 3.75 percent at their projected date of termination or retirement.

Unused Sick Leave

To account for the effect of unused sick leave on credited service for Class Two members, the service of active Class Two members who retire is increased three months.

Future Post-Retirement Benefit Adjustments

Benefits are assumed to increase by the lesser of 1 percent annually or \$500 beginning on the July 1 following the receipt of 12 monthly benefit payments. The \$500 limit in the annual increase is not indexed to escalate in future years.

Payroll Growth Rate

The total annual payroll of active members (also applies to rehired retiree participants) is assumed to increase at an annual rate of 3.5 percent.

Other Assumptions

1. Valuation payroll (used for determining the amortization contribution rate): Prior fiscal year payroll projected forward one year using the overall payroll growth rate. This was determined separately for active employees and return to work employees by dividing the actual member contributions received during the prior fiscal year by the applicable member contribution rate for that fiscal year, and then projecting forward at 3.50 percent.
2. Individual salaries used to project benefits: Actual salaries from the past fiscal year are used to determine the final average salary as of the valuation date. For future salaries, the salary from the last fiscal year is projected forward with one year's salary scale.
3. Pay increase timing: Beginning of (fiscal) year. This is equivalent to assuming that reported salaries represent amounts paid to members during the year ended on the valuation date.
4. Percent married: 100 percent of male and 100 percent of female employees are assumed to be married.
5. Age difference: Males are assumed to be four years older than their spouses.
6. Percent electing annuity on death (when eligible): All of the spouses of vested, married participants are assumed to elect an immediate life annuity.
7. Inactive Population: All non-vested members are assumed to take an immediate refund. Vested members are assumed to take a deferred retirement benefit.
8. There will be no recoveries once disabled.
9. Decrement timing: Decrements of all types are assumed to occur mid-year.
10. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
11. Decrement relativity: Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
12. Incidence of Contributions: Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
13. Benefit Service: All members are assumed to accrue one year of eligibility service each year.

Participant Data

Participant data was supplied in electronic text files. There were separate files for (i) active and inactive members, and (ii) members and beneficiaries receiving benefits.

The data for active members included birth date, gender, service with the current city and total vesting service, salary and employee contribution account balances. For retired members and beneficiaries, the data included date of birth, gender, spouse's date of birth (where applicable), amount of monthly benefit, date of retirement and form of payment code.

Salary supplied for the current year was based on the annualized earnings for the year preceding the valuation date. Assumptions were made to correct for missing, bad, or inconsistent data. These had no material impact on the results presented.

Police Officers Retirement System

Development of Actuarial Value of Assets

(Amounts expressed in thousands)

	<u>July 1, 2014</u>
1. Actuarial Value of Assets at the Prior Valuation Date	\$ 3,922,041
2. Market Value of Assets at the Prior Valuation Date	\$ 3,526,448
3. Net External Cash Flow During the Year	
a. Contributions	\$ 251,638
b. Disbursements	(329,550)
c. Subtotal	\$ (77,912)
4. Expected Net Investment Income at 7.50% Earned on:	
a. Actuarial value of assets at the prior valuation date	\$ 294,153
b. Contributions	9,436
c. Disbursements	(12,358)
d. Subtotal	\$ 291,231
5. Expected Actuarial Value of Assets, End of Year (Item 1 + Item 3c + Item 4d)	\$ 4,135,360
6. Market Value of Assets as of the Current Valuation Date	\$ 3,985,102
7. Difference Between Expected Actuarial Assets and Market Value of Assets (Item 6 - Item 5)	\$ (150,258)
8. Excess/(Shortfall) Recognized (20% of Item 7)	\$ (30,052)
9. Actuarial Value of Plan Assets, End of Year (Item 5 + Item 8)	\$ 4,105,308
10. Asset Gain (Loss) for Year (Item 9 - Item 5)	\$ (30,052)
11. Asset gain (loss) as % of the actuarial value of assets	(0.73%)
12. Ratio of AVA to MVA	103.0%

General Assembly Retirement System

Summary of Actuarial Methods and Assumptions

Based on recommendations from the consulting actuary, the Budget and Control Board and the PEBA Board are responsible for adopting all actuarial methods and assumptions used in the annual actuarial valuations, except for the investment rate of return. Retirement reform legislation enacted in 2012 set the rate at 7.5 percent effective July 1, 2012 and requires that the assumed annual rate of return on investments be established by the General Assembly. South Carolina State Statute also requires that an experience analysis that reviews the economic and demographic assumptions be performed every five years. As a result of the most recently completed experience analysis for the five year period ended June 30, 2010, the Boards adopted a number of changes in the actuarial assumptions which were adopted and utilized beginning with the July 1, 2011 annual valuations. In addition, the rates of retirement and disability incidence were subsequently modified as of July 1, 2012 to better model expected future mortality experience as a result of the pension reform bill enacted in 2012.

The following presents a summary of the actuarial assumptions and methods used in the valuation of the Retirement System for Members of the General Assembly of South Carolina.

Investment Rate of Return

Assumed annual rate of 7.5 percent net of investment and administrative expenses composed of a 2.75 percent inflation component and a 4.75 percent real rate of return, net of investment and administration expenses.

Rates of Annual Salary Increase

No increases in salary are assumed.

Active Member Decrement Rates

- a. Assumed rates of service retirement are shown in the following table. In addition to the rates in the table below, members with 30 years of service are assumed to immediately commence their retirement benefit. Special contributors are assumed to retire at the earlier of attaining age 60 or attaining 22 years of service.

Age Based Retirement Rates

Age	Assumed Rate
60 & Under	40.00%
61-64	7.00%
65-69	15.00%
70 & older	100.00%

- b. An abbreviated table with the assumed rates of disability and mortality while employed is shown on the following page. There is no active employment withdrawal assumption.

Disability Rates Pre-Retirement Mortality

Age	Disability Rates		Pre-Retirement Mortality	
	Male	Female	Male	Female
25	0.0575%	0.0525%	0.0414%	0.0166%
30	0.1150%	0.0735%	0.0488%	0.0211%
35	0.1725%	0.1470%	0.0850%	0.0380%
40	0.2875%	0.1890%	0.1187%	0.0565%
45	0.4025%	0.2730%	0.1659%	0.0899%
50	0.5750%	0.4620%	0.2352%	0.1341%
55	0.9200%	0.7350%	0.3332%	0.2021%
60	1.1500%	1.1235%	0.5366%	0.3145%
Multiplier			110%	80%

Note: The multiplier has been applied to the decrement in the illustrative table.

Post Retirement Mortality

- a. Healthy retirees and beneficiaries-The RP-2000 Mortality Table projected using the AA projection table with multipliers based on plan experience. The following are sample rates.

Healthy Annuitant Mortality Rates Before Projection

Age	Male	Female
50	0.2138%	0.1508%
55	0.3624%	0.2445%
60	0.6747%	0.4550%
65	1.2737%	0.8735%
70	2.2206%	1.5068%
75	3.7834%	2.5295%
80	6.4368%	4.1291%
85	11.0757%	6.9701%
90	18.3408%	11.8514%
Multiplier	100%	90%

Note: The multiplier has been applied to the decrement in the illustrative table.

The following table provides the life expectancy for individuals retiring in future years based on the assumption with full generational projection.

Life Expectancy for an Age 65 Retiree in Years

Gender	Year of Retirement			
	2015	2020	2025	2030
Male	19.6	20.0	20.4	20.7
Female	22.3	22.5	22.7	22.9

- b. A separate table of mortality rates is used for disabled retirees based on the RP-2000 Disabled Retiree Mortality Table. The following are sample rates.

Disabled Annuitant Mortality Rates

Age	Male	Female
50	2.4629%	1.2689%
55	3.0126%	1.8198%
60	3.5736%	2.4023%
65	4.2648%	3.0829%
70	5.3196%	4.1398%
75	6.9757%	5.7453%
80	9.2966%	7.9543%
85	12.0363%	11.0223%
90	15.5897%	15.4054%
Multiplier	85%	110%

Note: The multiplier has been applied to the decrement in the illustrative table.

Asset Valuation Method

The actuarial value of assets is based on the market value of assets with five-year smoothing applied. This is accomplished by recognizing each year 20 percent of the difference between the market value of assets and the expected actuarial value of assets, based upon the assumed valuation rate of return.

Expected earnings are determined using the assumed investment rate of return and the beginning of year actuarial value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of administrative and investment expenses.

Actuarial Cost Method

The Entry Age Normal actuarial cost method allocates the System's actuarial present value of future benefits to various periods based upon service. The portion of the present value of future benefits allocated to years of service prior to the valuation date is the actuarial accrued liability, and the portion allocated to years following the valuation date is the present value of future normal costs. The normal cost is determined for each active member as the level dollar amount necessary to fully fund the expected benefits to be earned over the career of each individual active member. The normal cost is partially funded with active member contributions with the remainder funded by employer contributions.

An unfunded accrued liability exists in the amount equal to the excess of accrued liability over valuation assets. The amortization period of the System is the number of years required to fully amortize the unfunded accrued liability with the expected amount of employer contributions in excess of the employers' portion of the normal cost.

Future Cost-of-living Increases

No increases are assumed.

Payroll Growth Rate

None assumed.

Other Assumptions

1. Percent married: 100 percent of active members are assumed to be married.
2. Age difference: Males are assumed to be four years older than their spouses.
3. Percent electing annuity on death (when eligible): All of the spouses of vested, married participants are assumed to elect an immediate life annuity.
4. Inactive Population: All non-vested members are assumed to take an immediate refund. Members with a vested benefit are assumed to elect a refund or a deferred benefit commencing at age 60, whichever is more valuable at the valuation date.
5. It is assumed there will be no recoveries once disabled.
6. Decrement timing: Decrements of all types are assumed to occur mid-year.
7. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
8. Benefit Service: All active and special contributing members are assumed to accrue one year of eligibility service each year.

Participant Data

Participant data was supplied in electronic text files. There were separate files for (i) active and inactive members, and (ii) members and beneficiaries receiving benefits.

The data for active members included birth date, gender, service with the current city and total vesting service, salary and employee contribution account balances. For retired members and beneficiaries, the data included date of birth, gender, spouse's date of birth (where applicable), amount of monthly benefit, date of retirement and form of payment code.

Salary supplied for the current year was based on the annualized earnings for the year preceding the valuation date. Assumptions were made to correct for missing, bad, or inconsistent data. These had no material impact on the results presented.

General Assembly Retirement System

Development of Actuarial Value of Assets

(Amounts expressed in thousands)

	<u>July 1, 2014</u>
1. Actuarial Value of Assets at the Prior Valuation Date	\$ 38,033
2. Market Value of Assets at the Prior Valuation Date	\$ 31,904
3. Net External Cash Flow During the Year	
a. Contributions	\$ 4,447
b. Disbursements	(6,845)
c. Subtotal	\$ (2,398)
4. Expected Net Investment Income at 7.50% Earned on:	
a. Actuarial value of assets at the prior valuation date	\$ 2,852
b. Contributions	319
c. Disbursements	(257)
d. Subtotal	\$ 2,914
5. Expected Actuarial Value of Assets, End of Year (Item 1 + Item 3c + Item 4d)	\$ 38,549
6. Market Value of Assets as of the Current Valuation Date	\$ 34,034
7. Difference Between Expected Actuarial Assets and Market Value of Assets (Item 6 - Item 5)	\$ (4,515)
8. Excess/(Shortfall) Recognized (20% of Item 7)	\$ (903)
9. Actuarial Value of Plan Assets, End of Year (Item 5 + Item 8)	\$ 37,646
10. Asset Gain (Loss) for Year (Item 9 - Item 5)	\$ (903)
11. Asset Gain (Loss) as % of Actual Actuarial Assets	(2.4%)
12. Ratio of AVA to MVA	110.6%

Judges and Solicitors Retirement System

Summary of Actuarial Methods and Assumptions

Based on recommendations from the consulting actuary, the Budget and Control Board and the PEBA Board are responsible for adopting all actuarial methods and assumptions used in the annual actuarial valuations, except for the investment rate of return. Retirement reform legislation enacted in 2012 set the rate at 7.5 percent effective July 1, 2012 and requires that the assumed annual rate of return on investments be established by the General Assembly. South Carolina State Statute also requires that an experience analysis that reviews the economic and demographic assumptions be performed every five years. As a result of the most recently completed experience analysis for the five year period ended June 30, 2010, the Boards adopted a number of changes in the actuarial assumptions which were adopted and utilized beginning with the July 1, 2011 annual valuations. In addition, the rates of retirement and disability incidence were subsequently modified as of July 1, 2012 to better model expected future experience as a result of the pension reform bill enacted in 2012.

The following presents a summary of the actuarial assumptions and methods used in the valuation of the Retirement System for Judges and Solicitors of South.

Investment Rate of Return

Assumed annual rate of 7.5 percent net of investment and administrative expenses composed of a 2.75 percent inflation component and a 4.75 percent real rate of return, net of investment and administration expenses.

Rates of Annual Salary Increase

Rates of salary are assumed to increase at an annual rate of 3 percent.

Active Member Decrement Rates

- a. Assumed rates of service retirement are shown in the following table. In addition to the rates in the table below, all participants are assumed to retire upon reaching the mandatory retirement age of 72.

Assumed Rates of Retirement

Solicitors and Public Defenders				Judges			
Age	Service	RIP Eligible	Not RIP Eligible	Age	Service	RIP Eligible	Not RIP Eligible
70 to 72	15 to 23	12%	12%	70 to 72	15 to 24	12%	12%
65 to 69	20 to 23	40%	40%	65 to 69	20 to 24	40%	40%
Any	24	20%	40%	Any	25	15%	25%
Any	25	15%	25%	Any	26	10%	15%
Any	26	10%	12%	Any	27	10%	15%
Any	27	10%	12%	Any	28	10%	15%
Any	28	10%	12%	Any	29	10%	15%
Any	29	5%	12%	Any	30	5%	15%
Any	30	5%	12%	Any	31	5%	15%
Any	31+	100%	N/A	Any	32+	100%	N/A

- b. An abbreviated table with the assumed rates of disability and mortality while employed is shown below. There is no active employment withdrawal assumption.

Disability Rates Pre-Retirement Mortality

Age	Disability Rates		Pre-Retirement Mortality	
	Male	Female	Male	Female
25	0.0400%	0.0520%	0.0432%	0.0145%
30	0.0600%	0.0700%	0.0511%	0.0185%
35	0.0800%	0.0700%	0.0889%	0.0333%
40	0.1500%	0.1220%	0.1241%	0.0494%
45	0.2500%	0.2500%	0.1734%	0.0787%
50	0.4000%	0.4000%	0.2459%	0.1173%
55	0.6500%	0.6500%	0.3483%	0.1768%
60	1.0000%	1.0000%	0.5610%	0.2752%
65	1.2500%	1.2500%	0.8082%	0.3800%
Multiplier	N/A	N/A	115%	70%

Note: The multiplier has been applied to the decrement in the illustrative table.

Post Retirement Mortality

- a. Healthy retirees and beneficiaries – The valuation assumes fully generational mortality. The base mortality table used is the RP-2000 Mortality Table with White Collar adjustment, adjusted by multipliers documented in the table below. Future mortality improvements are assumed each year using Scale AA. The following are sample rates.

Healthy Annuitant Mortality Rates Before Projection

Age	Male	Female
50	0.2176%	0.1510%
55	0.3632%	0.2457%
60	0.6141%	0.4443%
65	1.2167%	0.8218%
70	2.1203%	1.4426%
75	3.6997%	2.4431%
80	6.5353%	4.0926%
85	11.5132%	7.0483%
90	19.6100%	11.9843%
Multiplier	110%	95%

Note: The multiplier has been applied to the decrement in the illustrative table.

The following table provides the life expectancy for individuals retiring in future years based on the assumption with full generational projection.

Life Expectancy for an Age 65 Retiree in Years

Gender	Year of Retirement			
	2015	2020	2025	2030
Male	19.5	19.9	20.3	20.6
Female	22.4	22.6	22.8	22.9

- b. A separate table of mortality rates is used for disabled retirees based on the RP-2000 Disabled Retiree Mortality Table. The following are sample rates.

Disabled Annuitant Mortality Rates

Age	JSRS	
	Male	Female
50	2.173%	1.269%
55	2.658%	1.820%
60	3.153%	2.402%
65	3.763%	3.083%
70	4.694%	4.140%
75	6.155%	5.745%
80	8.203%	7.954%
85	10.620%	11.022%
90	13.756%	15.405%
Multiplier	75%	110%

Note: The multiplier has been applied to the decrement in the illustrative table.

Asset Valuation Method

The actuarial value of assets is based on the market value of assets with five-year smoothing applied. This is accomplished by recognizing each year 20 percent of the difference between the market value of assets and the expected actuarial value of assets, based upon the assumed valuation rate of return.

Expected earnings are determined using the assumed investment rate of return and the beginning of year actuarial value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of administrative and investment expenses.

Actuarial Cost Method

The Entry Age Normal actuarial cost method allocates the System's actuarial present value of future benefits to various periods based upon service. The portion of the present value of future benefits allocated to years of service prior to the valuation date is the actuarial accrued liability, and the portion allocated to years following the valuation date is the present value of future normal costs. The normal cost is determined for each active member as the level percent of payroll necessary to fully fund the expected benefits to be earned over the career of each individual active member. The normal cost is partially funded with active member contributions with the remainder funded by employer contributions.

An unfunded accrued liability exists in the amount equal to the excess of accrued liability over valuation assets. The amortization period of the System is the number of years required to fully amortize the unfunded accrued liability with the expected amount of employer contributions in excess of the employers' portion of the normal cost.

The calculation of the amortization period takes into account scheduled increases to contribution rates applicable to future years and payroll growth. Also, the calculation of the amortization period reflects additional contributions the System receives with respect to members in DROP and who are retired-in-place. These contributions are assumed to grow at the same payroll growth rate as for active employees. It is assumed that amortization payments are made monthly at the end of the month.

Future Cost-of-living Increases

Future benefits are assumed to increase at an annual rate of 3 percent.

Payroll Growth Rate

The total annual payroll of active members (including DROP and RIP participants) is assumed to increase at an annual rate of 3 percent. This rate represents the underlying expected annual rate of wage inflation and does not anticipate increases in the number of members.

Other Assumptions

1. Percent married: 95 percent of male and female employees are assumed to be married.
2. Age difference: Males are assumed to be four years older than their spouses.
3. Percent electing annuity on death (when eligible): All of the spouses of vested married participants are assumed to elect an immediate life annuity.
4. Inactive Population: All non-vested members are assumed to take an immediate refund. Members with a vested benefit are assumed to elect a deferred benefit commencing at their earliest possible commencement age.
5. There will be no recoveries once disabled.
6. Decrement timing: Decrements of all types are assumed to occur mid-year.
7. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
8. Benefit Service: All active members are assumed to accrue one year of eligibility service each year.

Participant Data

Participant data was supplied in electronic text files. There were separate files for (i) active and inactive members, and (ii) members and beneficiaries receiving benefits.

The data for active members included birth date, gender, service with the current city and total vesting service, salary and employee contribution account balances. For retired members and beneficiaries, the data included date of birth, gender, spouse's date of birth (where applicable), amount of monthly benefit, date of retirement and form of payment code.

Salary supplied for the current year was based on the annualized earnings for the year preceding the valuation date. Assumptions were made to correct for missing, bad or inconsistent data. These had no material impact on the results presented.

Judges and Solicitors Retirement System

Development of Actuarial Value of Assets

(Amounts expressed in thousands)

	<u>July 1, 2014</u>
1. Actuarial Value of Assets at the Prior Valuation Date	\$ 147,648
2. Market Value of Assets at the Prior Valuation Date	\$ 131,278
3. Net External Cash Flow During the Year	
a. Contributions	\$ 12,107
b. Disbursements	(16,490)
c. Subtotal	\$ (4,383)
4. Expected Net Investment Income at 7.50% Earned on:	
a. Actuarial value of assets at the prior valuation date	\$ 11,074
b. Contributions	454
c. Disbursements	(618)
d. Subtotal	\$ 10,910
5. Expected Actuarial Value of Assets, End of Year (Item 1 + Item 3c + Item 4d)	\$ 154,175
6. Market Value of Assets as of the Current Valuation Date¹	\$ 147,496
7. Difference Between Expected Actuarial Assets and Market Value of Assets (Item 6 - Item 5)	\$ (6,679)
8. Excess/(Shortfall) Recognized (20% of Item 7)	\$ (1,336)
9. Actuarial Value of Plan Assets, End of Year, Before Reflection of Restatement of the Market Value (Item 5 + Item 8)	\$ 152,839
10. Asset Gain (Loss) for Year (Item 9 - Item 5)	\$ (1,336)
11. Asset Gain (Loss) as % of the Actuarial Value of Assets	(0.87%)
12. Adjustment to the Market and Actuarial Value of Assets Due to the Restatement of the Market Value of Assets to Reflect TERI to Conform with GASB No. 67	\$ 0
13. Market Value of Assets as of the Current Valuation Date² (Item 6 + Item 12)	\$ 147,496
14. Final Actuarial Value of Assets (Item 9 + Item 12)	\$ 152,839
15. Ratio of AVA to MVA	103.6%

¹ Market value of assets prior to restatement for conformity with GASB No. 67.

² Market value of assets restated to include outstanding balance of TERI to conform with GASB No. 67.

South Carolina National Guard

Supplemental Retirement Plan

Summary of Actuarial Methods and Assumptions

Based on recommendations from the consulting actuary, the Budget and Control Board and the PEBA Board are responsible for adopting all actuarial methods and assumptions used in the annual actuarial valuations, except for the investment rate of return. Retirement reform legislation enacted in 2012 set the rate at 7.5 percent effective July 1, 2012 and requires that the assumed annual rate of return on investments be established by the General Assembly. South Carolina State Statute also requires that an experience analysis that reviews the economic and demographic assumptions be performed every five years. As a result of the most recently completed experience analysis for the five year period ended June 30, 2010, the Boards adopted a number of changes in the actuarial assumptions which were adopted and utilized beginning with the July 1, 2011 annual valuations. In addition, the rates of retirement and disability incidence were subsequently modified as of July 1, 2012 to better model expected future experience as a result of the pension reform bill enacted in 2012.

The following presents a summary of the actuarial assumptions and methods used in the valuation of the South Carolina National Guard Supplemental Retirement Plan.

Investment Rate of Return

Assumed annual rate of 7.5 percent net of investment and administrative expenses composed of a 2.75 percent inflation component and a 4.75 percent real rate of return, net of investment and administration expenses.

Rates of Annual Salary Increase

No increases in salary are assumed. The benefit is not related to pay.

Active Member Decrement Rates

- a. Assumed rates of service retirement are shown in the following table. Members who retire prior to age 60 are assumed to defer retirement benefits until age 60.

Age Based Retirement Rates

Age	Rate with 20 or more years of service	Rate with 30 or more years of service
39 & Under	10.00%	100.00%
40-49	10.00%	100.00%
50-59	10.00%	100.00%
60 & older	100.00%	100.00%

- b. An abbreviated table with the assumed rates of disability and mortality while employed is shown on the following page. There is no active employment withdrawal assumption.

Disability Rates Pre-Retirement Mortality

Age	Disability Rates		Pre-Retirement Mortality	
	Male	Female	Male	Female
25	0.0854%	0.0854%	0.0338%	0.0186%
30	0.1100%	0.1100%	0.0653%	0.0264%
35	0.1474%	0.1474%	0.0978%	0.0467%
40	0.2201%	0.2201%	0.1234%	0.0790%
45	0.3595%	0.3595%	0.1614%	0.1248%
50	0.6059%	0.6059%	0.2171%	0.1767%
55	1.0089%	1.0089%	0.3776%	0.2516%
60	1.6269%	1.6269%	0.7443%	0.4454%
Multiplier			90.0%	90.0%

Note: The multiplier has been applied to the decrement in the illustrative table.

Post Retirement Mortality

Retirees and beneficiaries – The valuation assumes fully generational mortality. The base mortality table is 115 percent of the RP-2000 Mortality Table with Blue Collar Adjustment. Future mortality improvements are assumed each year using Scale AA .The following are sample rates.

Annuitant Mortality Rates Before Projection (Multiplier Applied)

Age	Male	Female
50	0.2774%	0.2257%
55	0.4825%	0.3214%
60	0.9511%	0.5691%
65	1.7870%	1.1958%
70	3.0772%	2.1429%
75	4.9601%	3.5521%
80	8.1129%	5.6296%
85	13.2339%	9.5565%
90	20.9021%	15.7189%
Multiplier	115%	115%

Note: The multiplier has been applied to the decrement in the illustrative table.

The following table provides the life expectancy for individuals retiring in future years based on the assumption with full generational projection.

Life Expectancy for an Age 65 Retiree in Years

Gender	Year of Retirement			
	2015	2020	2025	2030
Male	17.8	18.2	18.6	19.0
Female	19.7	19.9	20.1	20.4

Asset Valuation Method

The actuarial value of assets is based on the market value of assets with five-year smoothing applied. This is accomplished by recognizing each year 20 percent of the difference between the market value of assets and the expected actuarial value of assets, based upon the assumed valuation rate of return.

Expected earnings are determined using the assumed investment rate of return and the beginning of year actuarial value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of administrative and investment expenses.

Actuarial Cost Method

The Entry Age Normal actuarial cost method allocates the System's actuarial present value of future benefits to various periods based upon service. The portion of the present value of future benefits allocated to years of service prior to the valuation date is the actuarial accrued liability, and the portion allocated to years following the valuation date is the present value of future normal costs. The normal cost is determined for each active member as the level dollar amount necessary to fully fund the expected benefits to be earned over the career of each individual active member. The normal cost is partially funded with active member contributions with the remainder funded by employer contributions.

An unfunded accrued liability exists in the amount equal to the excess of accrued liability over valuation assets. The amortization period of the System is the number of years required to fully amortize the unfunded accrued liability with the expected amount of employer contributions in excess of the employers' portion of the normal cost.

Future Cost-of-Living Increases

No increases are assumed.

Payroll Growth Rate

None assumed.

Other Assumptions

1. There is not a marriage assumption.
2. Decrement timing: Decrements of all types are assumed to occur mid-year.
3. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.

Participant Data

Participant data was supplied in electronic text files. There were separate files for (i) active, and (ii) members and beneficiaries receiving benefits.

The data for active members included birth date, gender, total military service and total South Carolina National Guard service. For retired members and beneficiaries, the data included date of birth, gender, spouse's date of birth (where applicable), amount of monthly benefit, date of retirement and form of payment code.

Assumptions were made to correct for missing, bad or inconsistent data. These had no material impact on the results presented.

South Carolina National Guard Supplemental Retirement Plan

Development of Actuarial Value of Assets

(Amounts expressed in thousands)

	<u>July 1, 2014</u>
1. Actuarial Value of Assets at the Prior Valuation Date	\$ 22,208
2. Market Value of Assets at the Prior Valuation Date	\$ 19,424
3. Net External Cash Flow During the Year	
a. Contributions	\$ 4,586
b. Disbursements	(4,248)
c. Subtotal	\$ 338
4. Expected Net Investment Income at 7.50% Earned on:	
a. Actuarial value of assets at the prior valuation date	\$ 1,666
b. Contributions	344
c. Disbursements	(159)
d. Subtotal	\$ 1,851
5. Expected Actuarial Value of Assets, End of Year (Item 1 + Item 3c + Item 4d)	\$ 24,397
6. Market Value of Assets as of the Current Valuation Date	\$ 22,558
7. Difference Between Expected Actuarial Assets and Market Value of Assets (Item 6 - Item 5)	\$ (1,839)
8. Excess/(Shortfall) Recognized (20% of Item 7)	\$ (368)
9. Actuarial Value of Plan Assets, End of Year (Item 5 + Item 8)	\$ 24,029
10. Asset Gain (Loss) for Year (Item 9 - Item 5)	\$ (368)
11. Asset Gain (Loss) as % of Actual Actuarial Assets	(1.5%)
12. Ratio of AVA to MVA	106.5%

South Carolina Retirement System Summary of Historical Active Membership

As of July 1, 2014

July 1	Number of Employers ²	Active Members		Covered Payroll ¹		Average Annual Pay		Average Age	Average Service
		Number	Percent Increase/ Decrease	Amount in Thousands	Percent Increase/ Decrease	Amount	Percent Increase/ Decrease		
2014	810	185,265	0.3%	\$7,539,996	1.4%	\$40,698	1.10%	45	10.2
2013	808	184,690	(0.6%)	7,434,820	1.1%	40,256	1.65%	45	10.2
2012	806	185,748	(1.0%)	7,356,231	(4.3%)	39,603	(3.35%)	45	10.4
2011	803	187,611	(1.4%)	7,687,558	(1.1%)	40,976	0.33%	45	10.5
2010	800	190,239	(1.1%)	7,769,820	(4.7%)	40,842	1.20%	45	10.2
2009	781	192,319	(0.3%)	7,761,808	2.7%	40,359	2.95%	45	10.0
2008	776	192,820	2.6%	7,559,172	6.6%	39,203	3.89%	45	9.7
2007	777	187,968	2.0%	7,093,181	5.3%	37,736	3.28%	45	9.8
2006	763	184,282	1.8%	6,733,379	5.9%	36,538	4.06%	45	9.9
2005	768	181,022	(0.4%)	6,356,489	2.8%	35,114	3.30%	44	9.6

¹Covered payroll does not include payroll attributable to members in State ORP, TERI, or working retirees.

²Number of employers that cover employees eligible for SCRS benefits and that contributed to the system during the last fiscal year. Although the state is considered the primary government and includes all state agencies as a single employer, for purposes of this schedule, each state agency is reported separately and counted as an employer.

Police Officers Retirement System Summary of Historical Active Membership

As of July 1, 2014

July 1	Number of Employers ²	Active Members		Covered Payroll ¹		Average Annual Pay		Average Age	Average Service
		Number	Percent Increase/ Decrease	Amount in Thousands	Percent Increase/ Decrease	Amount	Percent Increase/ Decrease		
2014	310	26,697	1.9%	\$1,076,885	4.2%	\$40,337	2.27%	40	9.5
2013	356	26,194	0.1%	1,033,189	1.4%	39,444	1.31%	40	9.4
2012	325	26,179	(1.8%)	1,019,241	(6.3%)	38,934	(4.60%)	40	9.5
2011	356	26,650	0.3%	1,087,587	1.0%	40,810	0.72%	40	9.6
2010	322	26,568	(0.1%)	1,076,467	(0.7%)	40,517	(0.60%)	40	8.7
2009	318	26,598	0.6%	1,084,154	2.2%	40,761	1.55%	40	8.4
2008	313	26,427	3.0%	1,060,747	6.8%	40,139	3.68%	39	8.2
2007	313	25,645	3.4%	992,849	6.6%	38,715	3.09%	39	8.3
2006	314	24,813	4.3%	931,815	9.5%	37,554	5.05%	40	8.3
2005	314	23,795	0.3%	850,610	3.4%	35,747	3.16%	39	8.2

¹Covered payroll does not include payroll attributable to working retirees.

²Number of employers that cover employees eligible for PORS benefits and that contributed to the system during the last fiscal year. Although the state is considered the primary government and includes all state agencies as a single employer, for purposes of this schedule, each state agency is reported separately and counted as an employer.

General Assembly Retirement System Summary of Historical Active Membership

As of July 1, 2014

July 1	Number of Employers ²	Active Members ¹		Covered Payroll		Average Annual Pay		Average Age	Average Service
		Number ¹	Percent Increase/ Decrease	Amount in Thousands	Percent Increase/ Decrease	Amount	Percent Increase/ Decrease		
2014	2	115	(3.4%)	\$ 2,601	(3.2%)	\$22,617	0.13%	55	12.4
2013	2	119	(30.0%)	2,688	(30.3%)	22,588	(.37%)	54	11.8
2012	2	170	0.0%	3,854	0.0%	22,671	0.00%	53	10.8
2011	2	170	0.0%	3,854	0.0%	22,671	0.00%	53	9.8
2010	2	170	0.0%	3,854	0.0%	22,671	0.00%	52	10.2
2009	2	170	0.0%	3,854	0.0%	22,671	0.00%	51	9.0
2008	2	170	0.0%	3,854	0.0%	22,671	0.00%	52	10.4
2007	2	170	0.0%	3,854	0.0%	22,671	0.00%	52	10.8
2006	2	170	0.0%	3,854	0.0%	22,671	0.01%	51	10.6
2005	2	170	0.0%	3,853	0.4%	22,668	0.38%	51	10.2

¹For valuations prior to 2013 the annual covered payroll included the payroll of filled and unfilled positions.

²Number of employers that cover employees eligible for GARS benefits and that contributed to the system during the last fiscal year. Although the state is considered the primary government and includes all state agencies as a single employer, for purposes of this schedule, each state agency is reported separately and counted as an employer.

Judges and Solicitors Retirement System Summary of Historical Active Membership

As of July 1, 2014

July 1	Number of Employers ²	Active Members ¹		Covered Payroll		Average Annual Pay		Average Age	Average Service
		Number ¹		Amount in Thousands ¹	Amount	Percent Increase/ Decrease			
2014	3	153		\$ 20,815	\$136,048	2.00%		56	15.1
2013	3	153		20,407	133,381	(0.07%)		56	15.5
2012	3	144		19,221	133,476	3.00%		56	15.1
2011	3	144		18,661	129,590	0.00%		55	14.3
2010	3	144		18,661	129,590	0.00%		55	15.0
2009	3	144		18,661	129,590	0.00%		55	15.4
2008	3	144		18,661	129,590	1.10%		54	15.7
2007	2	128		16,407	128,176	3.00%		55	19.4
2006	2	128		15,929	124,445	3.00%		55	20.1
2005	2	128		15,465	120,820	4.00%		55	19.5

¹Includes filled and unfilled positions and members in DROP or retired-in-place.

²Number of employers that cover employees eligible for JSRS benefits and that contributed to the system during the last fiscal year. Although the state is considered the primary government and includes all state agencies as a single employer, for purposes of this schedule, each state agency is reported separately and counted as an employer.

South Carolina National Guard Supplemental Retirement Plan Summary of Historical Active Membership

As of July 1, 2014

July 1	Number of Employers	Number of Members	Annual Payroll ¹	Average Pay ¹	Percent Increase in Average Pay ¹	Average Age	Average Service
2014	1	12,221	N/A	N/A	N/A	32	9.7
2013	1	11,997	N/A	N/A	N/A	32	9.5
2012	1	12,041	N/A	N/A	N/A	32	9.2
2011	1	12,271	N/A	N/A	N/A	32	9.3
2010	1	12,445	N/A	N/A	N/A	32	9.0
2009	1	12,599	N/A	N/A	N/A	32	8.7
2008	1	12,559	N/A	N/A	N/A	31	8.0
2007 ²	1	11,076	N/A	N/A	N/A	32	10.0
2006	1	2,502	N/A	N/A	N/A	45	23.0
2005	1	2,864	N/A	N/A	N/A	45	23.0

¹Not applicable as this is a non-contributory plan.

²Effective January 1, 2007, guardsmen who became members of the South Carolina National Guard after June 30, 1993, became eligible for membership.

South Carolina Retirement System Summary of Active Membership Data

As of July 1, 2014

(Dollar amounts expressed in thousands)

Group	Number ¹	Annual Compensation ²
State employees	49,260	\$ 2,094,856
Public school employees	82,739	3,157,166
Other agency employees	53,266	1,950,599
Total	<u>185,265</u>	<u>\$ 7,202,621</u>

¹In addition, there are 159,908 inactive members with contributions still in the system. The results of the valuation were adjusted to take these members into account.

²Total compensation is the annualized pay for the prior year.

Police Officers Retirement System Summary of Active Membership Data

As of July 1, 2014

(Dollar amounts expressed in thousands)

Group	Number ¹	Annual Compensation ²
State employees	9,652	\$ 343,901
Public school employees	0	0
Other agency employees	17,045	681,790
Total	<u>26,697</u>	<u>\$ 1,025,691</u>

¹In addition, there are 13,185 inactive members with contributions still in the system. The results of the valuation were adjusted to take these members into account.

²Total compensation is the annualized pay for the prior year.

General Assembly Retirement System Summary of Active Membership Data

As of July 1, 2014

(Dollar amounts expressed in thousands)

<u>Number¹</u>	<u>Annual Compensation</u>
115	\$ 2,601

¹There are 36 inactive members with contributions still in the system, and there are 16 special contributors. The results of the valuation were adjusted to take these members into account. Numbers shown above include members receiving retirement benefits while continuing in office.

Judges and Solicitors Retirement System Summary of Active Membership Data

As of July 1, 2014

(Dollar amounts expressed in thousands)

<u>Number¹</u>	<u>Annual Compensation</u>
153	\$ 20,815

¹The number of active members reflects the number of seats, including 19 participants who are either in the DROP or have retired in place and are receiving retirement benefits while continuing in office. There are two inactive members with contributions still in the system. The results of the valuation were adjusted to take these members into account.

South Carolina Retirement System Summary of Membership Data

	July 1, 2014	July 1, 2013
1. Service retirees		
a. Number	109,150	105,813
b. Total annual benefits	\$ 2,315,655,082	\$ 2,227,337,459
c. Average annual benefits	\$ 21,215	\$ 21,050
d. Average age at the valuation date	69.2	68.9
2. Disabled retirees		
a. Number	13,584	13,329
b. Total annual benefits	\$ 185,574,607	\$ 180,095,624
c. Average annual benefits	\$ 13,661	\$ 13,512
d. Average age at the valuation date	62.8	62.4
3. Beneficiaries		
a. Number	8,776	8,554
b. Total annual benefits	\$ 103,486,720	\$ 99,194,071
c. Average annual benefits	\$ 11,792	\$ 11,596
d. Average age at the valuation date	67.6	67.5

Police Officers Retirement System Summary of Membership Data

	July 1, 2014	July 1, 2013
1. Service retirees		
a. Number	12,485	12,153
b. Total annual benefits	\$ 254,520,214	\$ 247,127,574
c. Average annual benefits	\$ 20,386	\$ 20,335
d. Average age at the valuation date	64.2	63.7
2. Disabled retirees		
a. Number	2,380	2,259
b. Total annual benefits	\$ 48,179,102	\$ 44,953,501
c. Average annual benefits	\$ 20,243	\$ 19,900
d. Average age at the valuation date	54.1	53.9
3. Beneficiaries		
a. Number	1,238	1,205
b. Total annual benefits	\$ 14,938,347	\$ 14,325,696
c. Average annual benefits	\$ 12,067	\$ 11,889
d. Average age at the valuation date	67.8	67.9

General Assembly Retirement System Summary of Membership Data

	July 1, 2014	July 1, 2013
1. Service retirees		
a. Number	275	285
b. Total annual benefits	\$ 5,425,601	\$ 5,609,504
c. Average annual benefits	\$ 19,729	\$ 19,682
d. Average age at the valuation date	72.1	71.9
2. Disabled retirees		
a. Number	0	0
b. Total annual benefits	\$ 0	\$ 0
c. Average annual benefits	\$ 0	\$ 0
d. Average age at the valuation date	N/A	N/A
3. Beneficiaries		
a. Number	80	78
b. Total annual benefits	\$ 1,170,797	\$ 1,144,515
c. Average annual benefits	\$ 14,635	\$ 14,673
d. Average age at the valuation date	77.6	78.3

Judges and Solicitors Retirement System Summary of Membership Data

	July 1, 2014	July 1, 2013
1. Service retirees		
a. Number	148	147
b. Total annual benefits	\$ 14,784,469	\$ 14,359,793
c. Average annual benefits	\$ 99,895	\$ 97,686
d. Average age at the valuation date	70.3	70.2
2. Disabled retirees		
a. Number ¹	0	1
b. Total annual benefits	\$ 0	\$ 95,702
c. Average annual benefits	\$ 0	\$ 95,702
d. Average age at the valuation date	N/A	78.7
3. Beneficiaries		
a. Number	56	53
b. Total annual benefits	\$ 1,617,934	\$ 1,501,885
c. Average annual benefits	\$ 28,892	\$ 28,337
d. Average age at the valuation date	69.5	69.6

¹Includes members in DROP and retired-in-place. It does not include unfilled positions.

South Carolina National Guard Supplemental Retirement Plan Summary of Membership Data

	<u>July 1, 2014</u>	<u>July 1, 2013</u>
1. Active members		
a. Males	10,075	9,958
b. Females	2,146	2,039
c. Total members	12,221	11,997
d. Average age	32.1	32.0
e. Average service	9.7	9.5
2. Vested inactive members		
a. Number	2,130	2,292
b. Total annual deferred benefits	\$ 1,670,520	\$ 1,801,320
c. Average annual deferred benefits	\$ 784	\$ 786
3. Service retirees		
a. Number	4,628	4,541
b. Total annual benefits	\$ 4,229,880	\$ 4,167,540
c. Average annual benefit	\$ 914	\$ 918
d. Average age	69.7	69.3

South Carolina Retirement System

Schedule of Retirants Added to and Removed from Rolls¹

(Amounts except average allowance expressed in thousands)

Added to Rolls ²			Removed from Rolls ³		Rolls End of the Year		Percent Increase in Annual Benefits	Average Annual Benefits
July 1	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits		
2014	7,084	\$148,060	3,270	\$49,971	131,510	\$2,604,716	3.9%	\$19,806
2013	9,088	204,581	3,319	50,142	127,696	2,506,627	6.6%	19,630
2012	9,523	205,050	2,968	44,099	121,927	2,352,188	7.3%	19,292
2011	6,336	141,242	2,358	31,382	115,372	2,191,236	5.3%	18,993
2010	6,596	151,348	3,216	44,049	111,394	2,081,376	5.4%	18,685
2009	6,190	101,813	2,698	36,834	108,014	1,974,077	3.4%	18,276
2008	6,021	132,856	2,396	30,178	104,522	1,909,098	5.7%	18,265
2007	5,944	130,286	2,252	28,455	100,897	1,806,420	6.0%	17,904
2006	4,621	118,271	2,083	24,099	97,205	1,704,589	5.8%	17,536
2005	7,203	167,748	2,143	23,537	94,667	1,610,417	9.8%	17,011

Police Officers Retirement System

Schedule of Retirants Added to and Removed from Rolls

(Amounts except average allowance expressed in thousands)

Added to Rolls ²			Removed from Rolls ³		Rolls End of the Year		Percent Increase in Annual Benefits	Average Annual Benefits
July 1	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits		
2014	818	\$ 16,881	332	\$ 5,650	16,103	\$ 317,638	3.7%	\$19,725
2013	1,278	27,584	314	5,106	15,617	306,407	7.9%	19,620
2012	1,566	34,086	271	4,143	14,653	283,929	11.8%	19,377
2011	1,042	22,580	250	2,970	13,358	253,986	8.4%	19,014
2010	943	21,877	327	5,000	12,566	234,376	7.8%	18,652
2009	931	17,937	267	3,879	11,950	217,499	6.9%	18,201
2008	779	17,458	194	2,691	11,286	203,441	7.8%	18,026
2007	772	16,474	205	2,745	10,701	188,674	7.8%	17,631
2006	678	16,880	205	2,691	10,134	174,945	8.8%	17,263
2005	778	12,576	173	2,147	9,661	160,756	9.8%	16,640

¹ Includes Teacher and Employee Retention Incentive (TERI) participants.

² Annual benefits added to rolls includes the benefit adjustments provided to continuing retirees.

³ The removed from rolls count does not include members who are replaced by beneficiaries.

General Assembly Retirement System

Schedule of Retirants Added to and Removed from Rolls

(Amounts except average allowance expressed in thousands)

Added to Rolls ²			Removed from Rolls ³			Rolls End of the Year		
July 1	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits	Percent Increase in Annual Benefits	Average Annual Benefits
2014	12	\$ 200	20	\$ 358	355	\$ 6,596	-2.3%	\$18,581
2013	22	444	17	353	363	6,754	1.4%	18,606
2012	16	251	11	130	358	6,663	1.8%	18,611
2011	12	238	5	108	353	6,542	2.0%	18,534
2010	7	148	14	261	346	6,412	-1.7%	18,532
2009	26	505	15	266	353	6,525	3.8%	18,484
2008	19	337	10	134	342	6,286	3.3%	18,380
2007	18	321	2	13	333	6,083	5.3%	18,267
2006	13	238	8	179	317	5,775	1.0%	18,218
2005	22	486	7	125	312	5,716	6.8%	18,321

Judges and Solicitors Retirement System

Schedule of Retirants Added to and Removed from Rolls¹

(Amounts except average allowance expressed in thousands)

Added to Rolls ²			Removed from Rolls ³			Rolls End of the Year		
July 1	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits	Percent Increase in Annual Benefits	Average Annual Benefits
2014	7	\$ 637	4	\$ 192	204	\$ 16,402	2.8%	\$80,402
2013	10	279	9	42	201	15,957	1.5%	79,388
2012	6	912	4	184	200	15,720	4.9%	78,600
2011	9	827	5	196	198	14,992	4.4%	75,717
2010	18	1,210	8	593	194	14,361	4.5%	74,025
2009	10	903	4	259	184	13,744	4.9%	74,696
2008	6	545	3	156	178	13,100	3.1%	73,596
2007	32	2,690	1	30	175	12,711	26.5%	72,634
2006	4	464	1	28	144	10,051	4.5%	69,799
2005	3	581	1	27	141	9,615	6.1%	68,191

¹Beginning July 1, 2007, includes participants who have retired in place.

²Annual benefits added to rolls includes benefit adjustments for continuing retirees.

³The removed from rolls count does not include members who are replaced by beneficiaries.

South Carolina National Guard Supplemental Retirement Plan Schedule of Retirants Added to and Removed from Rolls

(Amounts except average allowance expressed in thousands)

Added to Rolls			Removed from Rolls		Rolls End of the Year		Percent Increase in Annual Benefits	Average Annual Benefits
July 1	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits		
2014	195	\$ 165	108	\$ 103	4,628	\$ 4,230	3.9%	\$ 914
2013	244	211	122	116	4,541	4,168	2.3%	918
2012	259	228	92	87	4,419	4,073	3.6%	922
2011	399	351	98	93	4,252	3,932	7.0%	925
2010	267	237	101	99	3,951	3,674	3.9%	930
2009	378	335	85	83	3,785	3,536	7.7%	934
2008	364	331	76	75	3,492	3,284	8.5%	940
2007	362	329	61	58	3,204	3,028	9.8%	945
2006	303	276	90	91	2,903	2,757	7.2%	950
2005	244	214	89	81	2,690	2,572	5.5%	956

Schedule of Funding Progress¹

(Amounts expressed in thousands)

SCRS	Valuation Date	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Annual Covered Payroll ²	UAAL as % of Payroll
	2014	\$26,910,740	\$ 42,889,614	\$ 15,978,874	62.7%	\$7,539,996	211.9%
	2013	25,753,068	41,196,062	15,442,994	62.5%	7,434,820	207.7%
	2012	25,540,749	39,457,708	13,916,959	64.7%	7,356,231	189.2%
	2011	25,604,823	38,011,610	12,406,787	67.4%	7,687,558	161.4%
	2010	25,400,331	38,774,029	13,373,698	65.5%	7,769,820	172.1%
	2009	25,183,062	37,150,315	11,967,253	67.8%	7,761,808	154.2%
	2008	24,699,678	35,663,419	10,963,741	69.3%	7,559,172	145.0%
	2007	23,541,438	33,766,678	10,225,240	69.7%	7,093,181	144.2%
	2006	22,293,446	32,018,519	9,725,073	69.6%	6,733,379	144.4%
	2005	21,625,510	30,217,471	8,591,961	71.6%	6,356,489	135.2%

PORS	Valuation Date	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Annual Covered Payroll ²	UAAL as % of Payroll
	2014	\$ 4,105,308	\$ 5,905,828	\$ 1,800,520	69.5%	\$1,076,885	167.2%
	2013	3,922,041	5,663,756	1,741,715	69.2%	1,033,189	168.6%
	2012	3,808,934	5,357,492	1,548,558	71.1%	1,019,241	151.9%
	2011	3,728,241	5,122,501	1,394,260	72.8%	1,087,587	128.2%
	2010	3,612,700	4,850,457	1,237,757	74.5%	1,076,467	115.0%
	2009	3,482,220	4,564,111	1,081,891	76.3%	1,084,154	99.8%
	2008	3,363,136	4,318,955	955,819	77.9%	1,060,747	90.1%
	2007	3,160,240	3,730,544	570,304	84.7%	992,849	57.4%
	2006	2,935,841	3,466,281	530,440	84.7%	931,815	56.9%
	2005	2,774,606	3,173,930	399,324	87.4%	850,610	46.9%

¹Funding progress for July 1, 2011, valuation adjusted to reflect pension reform legislation in Act 278.

²Covered payroll does not include payroll attributable to members in State ORP, TERI or working retirees.

Note: Effective 7-1-2005, actuarial assumptions were changed to include an increase in member contributions to 6.25 percent of earnings for fiscal year 2006 and 6.50 percent beginning fiscal year 2007; all return-to-work retirees and those TERI participants who joined the system after 7-01-2005 contributing at the same rate as active employees; a reduction in the interest rate credited to accumulated employee contributions from 6 percent to 4 percent; and the addition of a guaranteed COLA equal to the change in CPI, but not to exceed 1 percent, for SCRS retirees beginning the July 1st following a full year of annuity payments.

Effective 7-1-2008, actuarial assumptions for SCRS were changed as a result of a 5 year experience study. Changes in the investment return assumptions were adopted by the Board for the 7-01-2008 valuation for all plans.

Effective 7-1-2011, actuarial assumptions were changed as a result of a 5 year experience study. The investment return assumption, inflation assumption, rate of salary increases, payroll growth assumption, post-retirement mortality assumption for all groups, retirement rates and termination rates were revised for both SCRS and PORS. The actuarial valuation of asset method was changed from one that recognized the difference between the expected and actual return on the market value of assets over a 10-year period, to a modified 5-year asset smoothing method for both SCRS and PORS. In addition, there were minor changes to the rates of disability incidence for SCRS.

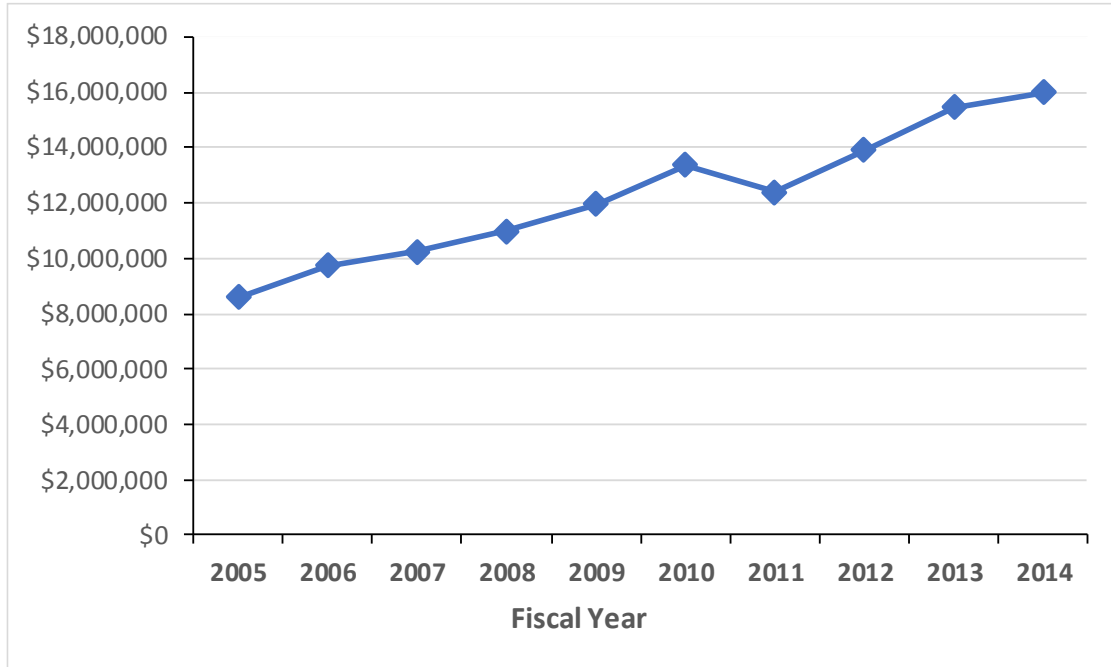
Effective 7-1-2012, disability and retirement rates were updated to more appropriately reflect the anticipated plan experience as a result of the enactment of Act 278. Act 278 became law in June 2012, which resulted in substantial changes to the benefit provisions of both SCRS and PORS.

South Carolina Retirement System

Funding Progress with Funded Ratios¹

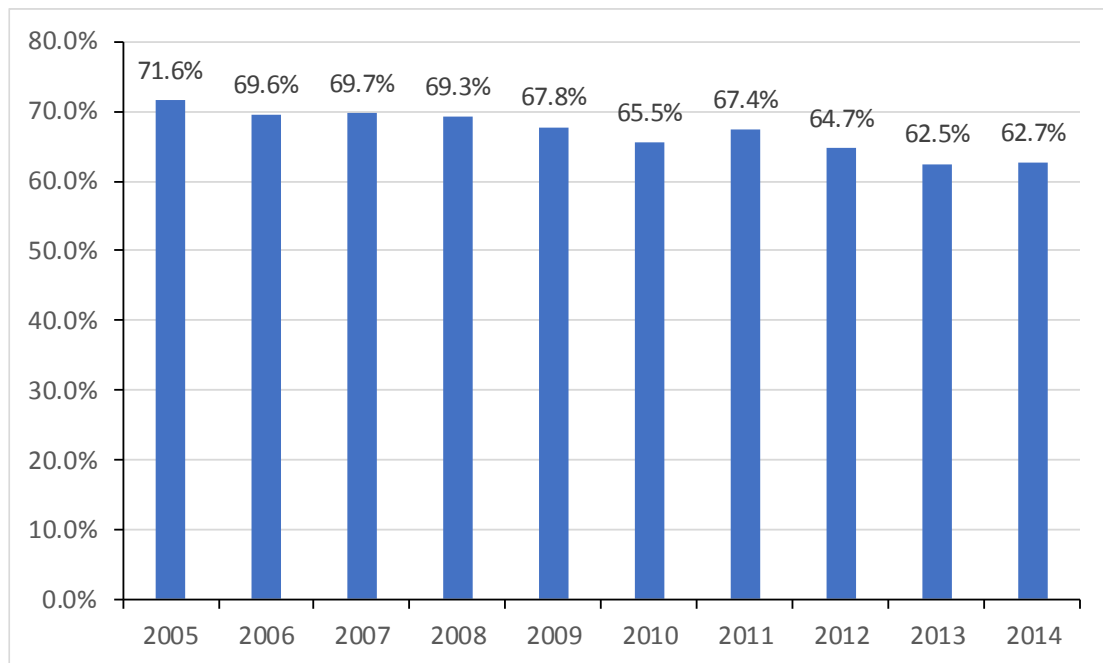
Unfunded Accrued Liabilities

(Amounts expressed in thousands)



Funded Ratios

(Actuarial assets as a percentage of actuarial accrued liabilities)

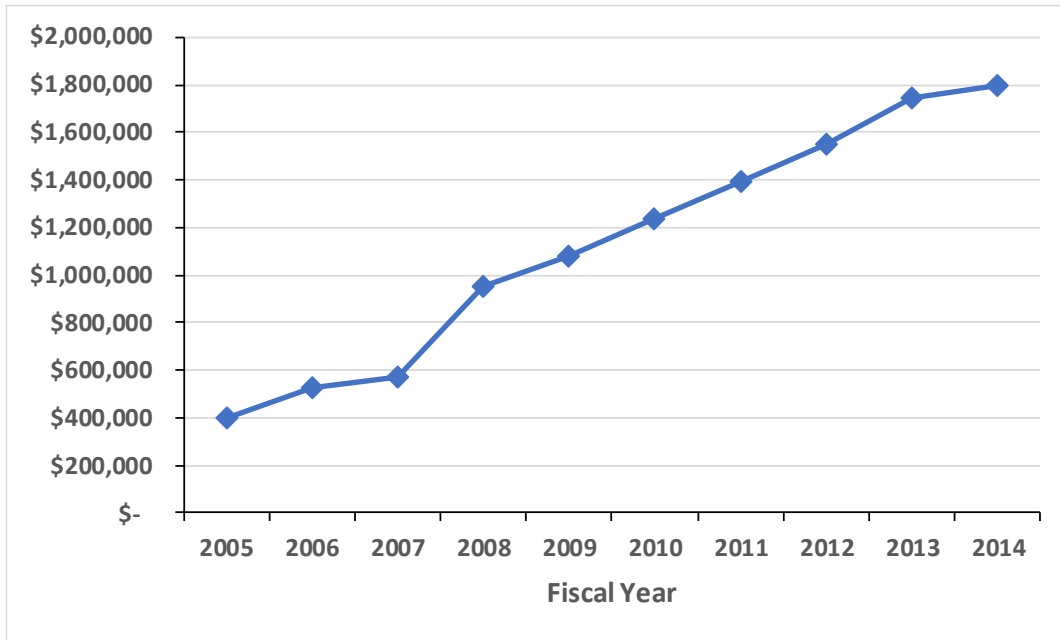


¹A 10-year schedule of actuarially determined and actual contributions can be found in the Required Supplementary Information portion of the Financial Section as part of the Schedule of Employers' Contributions.

Police Officers Retirement System Funding Progress with Funded Ratios¹

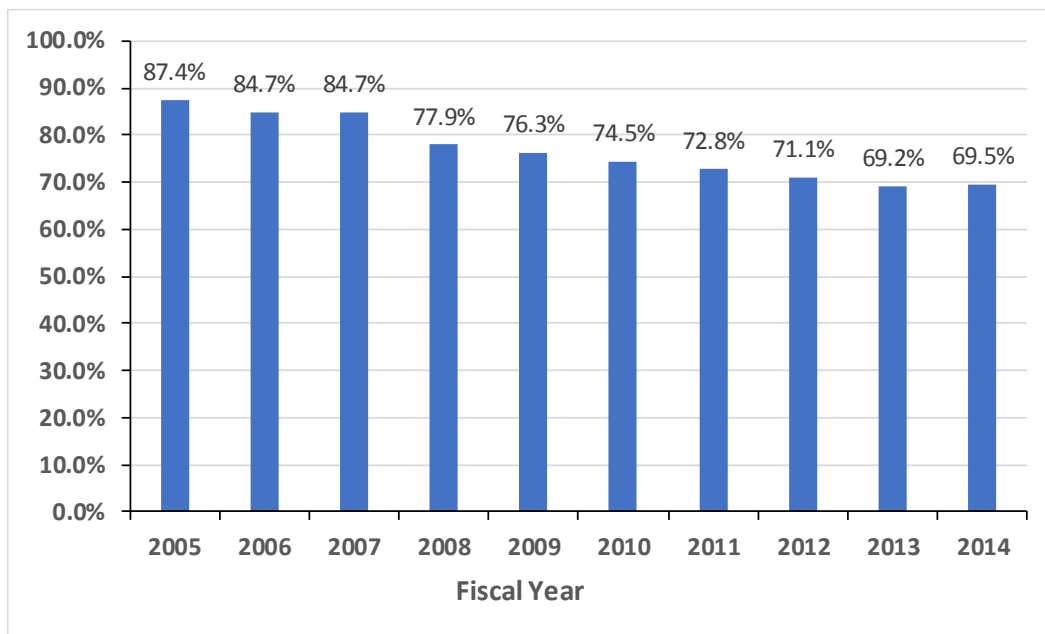
Unfunded Accrued Liabilities

(Amounts expressed in thousands)



Funded Ratios

(Actuarial assets as a percentage of actuarial accrued liabilities)



¹A 10-year schedule of actuarially determined and actual contributions can be found in the Required Supplementary Information portion of the Financial Section as part of the Schedule of Employers' Contributions.

Schedule of Funding Progress

(Amounts expressed in thousands)

GARS	Valuation Date	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Annual Covered Payroll ¹	UAAL as % of Payroll
	2014	\$ 37,646	\$ 74,514	\$ 36,868	50.5%	\$ 2,601	1,417.5%
	2013	38,033	75,639	37,606	50.3%	2,688	1,399.0%
	2012	39,233	74,332	35,099	52.8%	3,854	910.7%
	2011	41,484	74,604	33,120	55.6%	3,854	859.4%
	2010	43,712	68,671	24,959	63.7%	3,854	647.6%
	2009	45,891	68,491	22,600	67.0%	3,854	586.4%
	2008	47,189	69,122	21,933	68.3%	3,854	569.1%
	2007	46,925	71,014	24,089	66.1%	3,854	625.0%
	2006	46,075	69,734	23,659	66.1%	3,854	613.9%
	2005	46,316	69,161	22,845	67.0%	3,853	592.9%

¹For valuations prior to 2013, the annual covered payroll included the payroll of filled and unfilled positions.

JSRS	Valuation Date	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Annual Covered Payroll	UAAL as % of Payroll
	2014	\$ 152,839	\$ 264,293	\$ 111,454	57.8%	\$ 20,815	535.4%
	2013	147,648	256,988	109,340	57.5%	20,407	535.8%
	2012	145,604	251,729	106,125	57.8%	19,221	552.1%
	2011	144,927	243,514	98,587	59.5%	18,661	528.3%
	2010	142,871	215,823	72,952	66.2%	18,661	390.9%
	2009	141,797	214,363	72,566	66.1%	18,661	388.9%
	2008	138,323	213,406	75,083	64.8%	18,661	402.4%
	2007	132,990	229,388	96,398	58.0%	16,407	587.5%
	2006	124,837	211,384	86,547	59.1%	15,929	543.3%
	2005	118,888	204,847	85,959	58.0%	15,465	555.8%

Note: Effective 7-1-2005, actuarial assumptions were changed to include updated normal retirement rates based on analysis of historical normal retirement experience.

Changes in the investment return assumptions were adopted by the Board for the 7-01-2008 valuation for all plans.

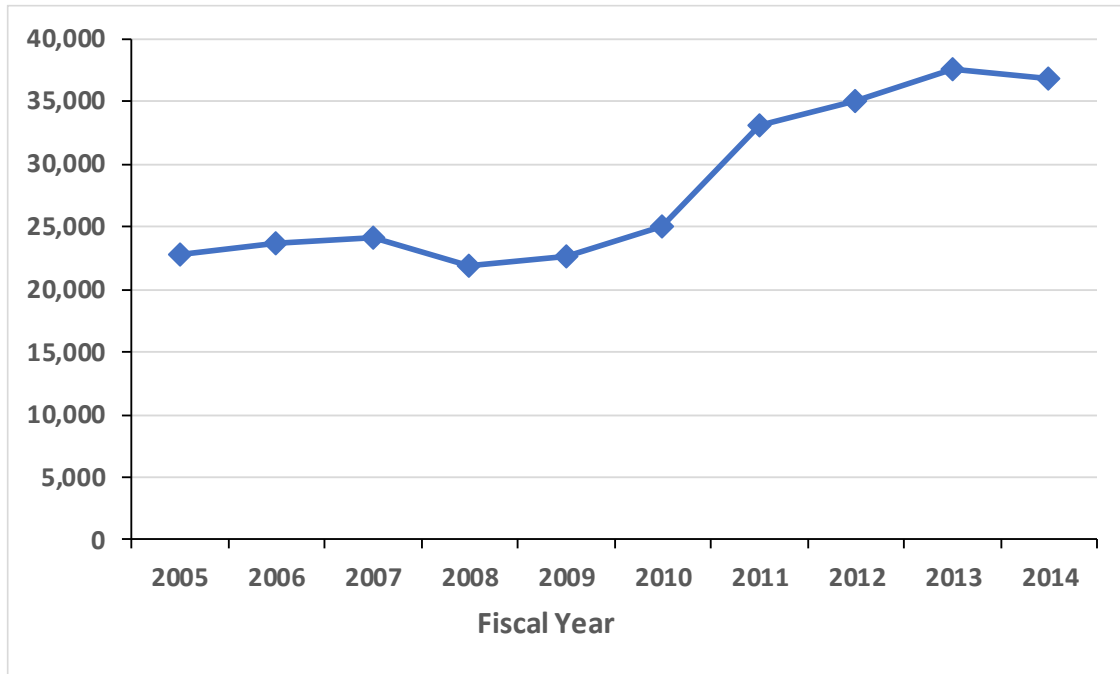
Effective 7-1-2011, actuarial assumptions were changed as a result of a 5 year experience study. The investment return assumption, inflation assumption and the mortality assumption were revised for both GARS and JSRS. The actuarial valuation of asset method was changed from one that recognized the difference between the expected and actual return on the market value of assets over a 10-year period, to a modified 5-year asset smoothing method for both GARS and JSRS.

Effective 7-1-2012, Act 278 became law in June 2012 and increased the member contribution rate from 10 percent of pay to 11 percent of pay effective 1-1-2013 for GARS members. The legislation also closed GARS to new members. Newly elected members of the General Assembly on or after the general election of 2012 shall elect to become members of SCRS, State ORP or non-membership.

General Assembly Retirement System Funding Progress with Funded Ratios¹

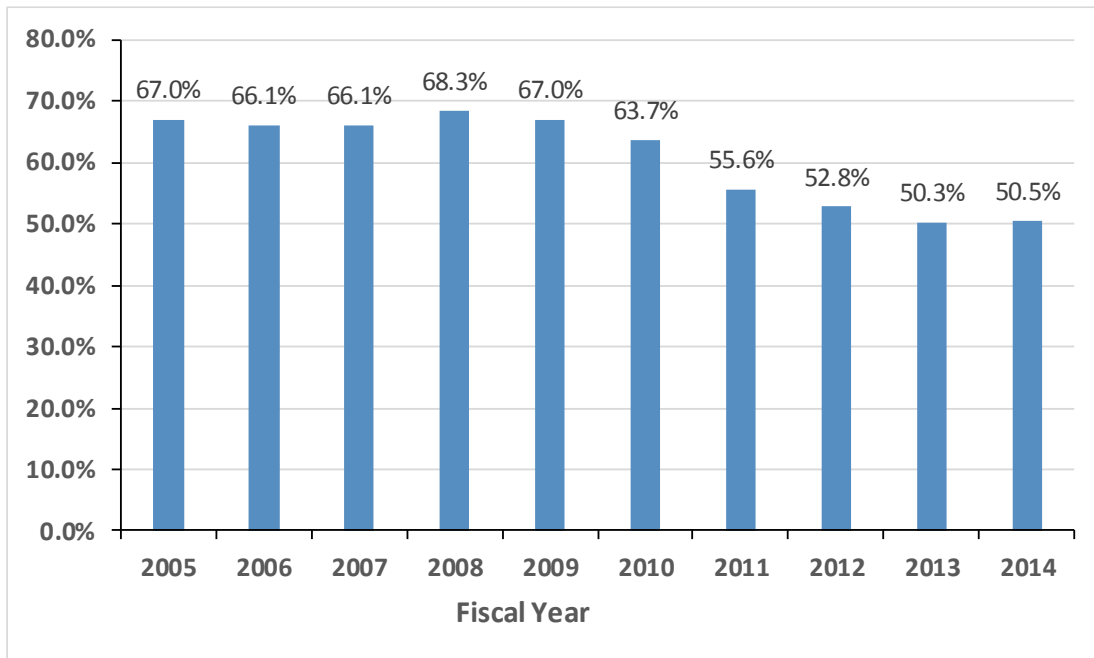
Unfunded Accrued Liabilities

(Amounts expressed in thousands)



Funded Ratios

(Actuarial assets as a percentage of actuarial accrued liabilities)

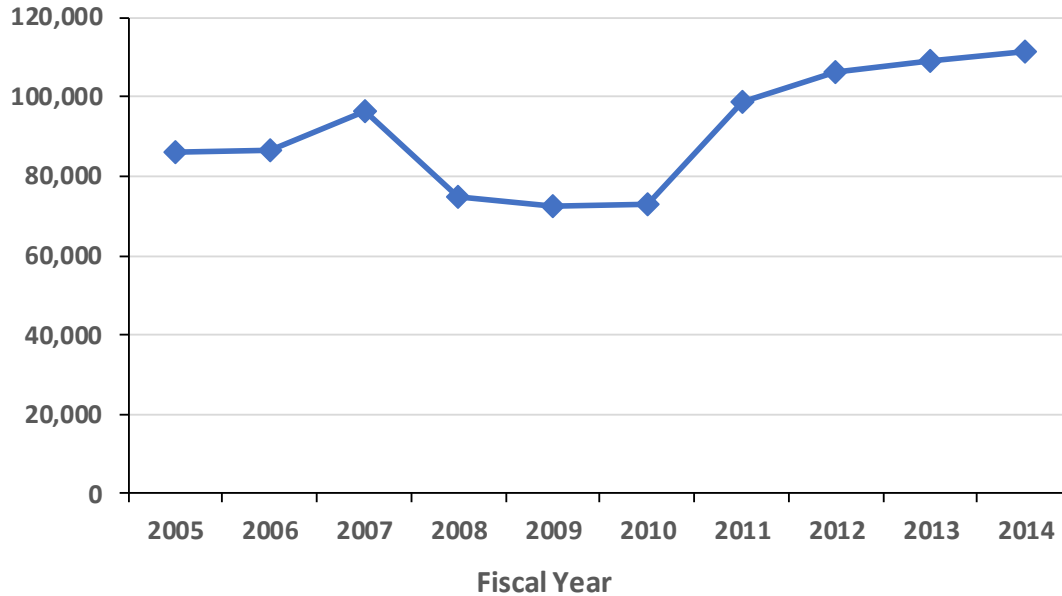


¹ A 10-year schedule of actuarially determined and actual contributions can be found in the Required Supplementary Information portion of the Financial Section as part of the Schedule of Employers' Contributions.

Judges and Solicitors Retirement System Funding Progress with Funded Ratios¹

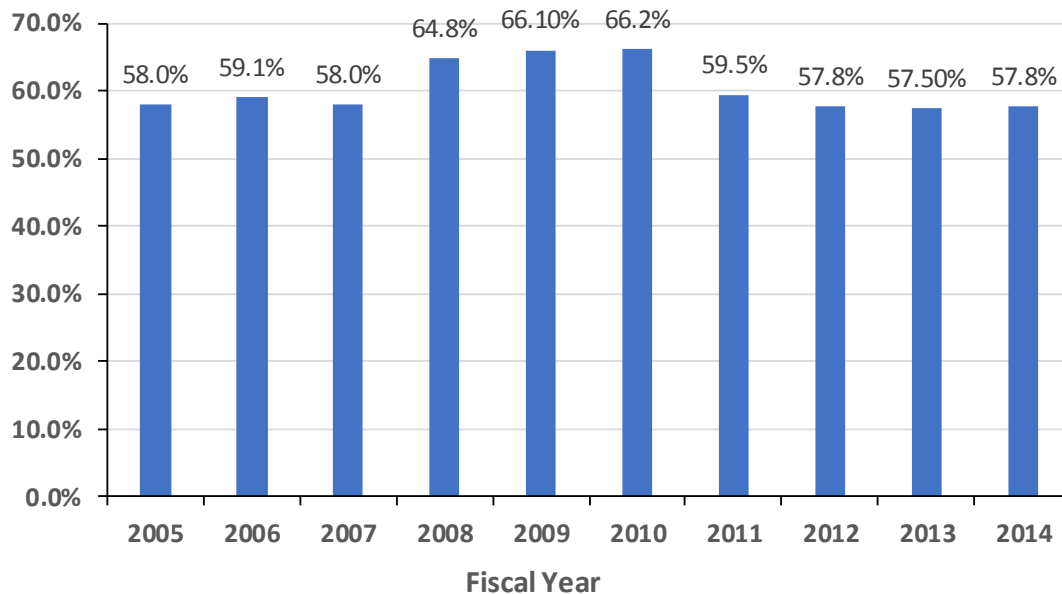
Unfunded Accrued Liabilities

(Amounts expressed in thousands)



Funded Ratios

(Actuarial assets as a percentage of actuarial accrued liabilities)



¹A 10-year schedule of actuarially determined and actual contributions can be found in the Required Supplementary Information portion of the Financial Section as part of the Schedule of Employers' Contributions.

Schedule of Funding Progress

(Amounts expressed in thousands)

SCNG	Valuation Date	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Annual Covered Payroll	UAAL as % of Payroll
	2014	\$ 24,029	\$ 62,100	\$ 38,071	38.7%	N/A	N/A
	2013	22,208	61,576	39,368	36.1%	N/A	N/A
	2012	20,814	60,942	40,128	34.2%	N/A	N/A
	2011	20,138	60,388	40,250	33.3%	N/A	N/A
	2010	19,458	54,153	34,695	35.9%	N/A	N/A
	2009	18,600	53,421	34,821	34.8%	N/A	N/A
	2008	17,426	53,534	36,108	32.6%	N/A	N/A
	2007	15,937	55,917	39,980	28.5%	N/A	N/A
	2006	14,046	48,755	34,709	28.8%	N/A	N/A
	2005	12,151	46,985	34,835	25.9%	N/A	N/A

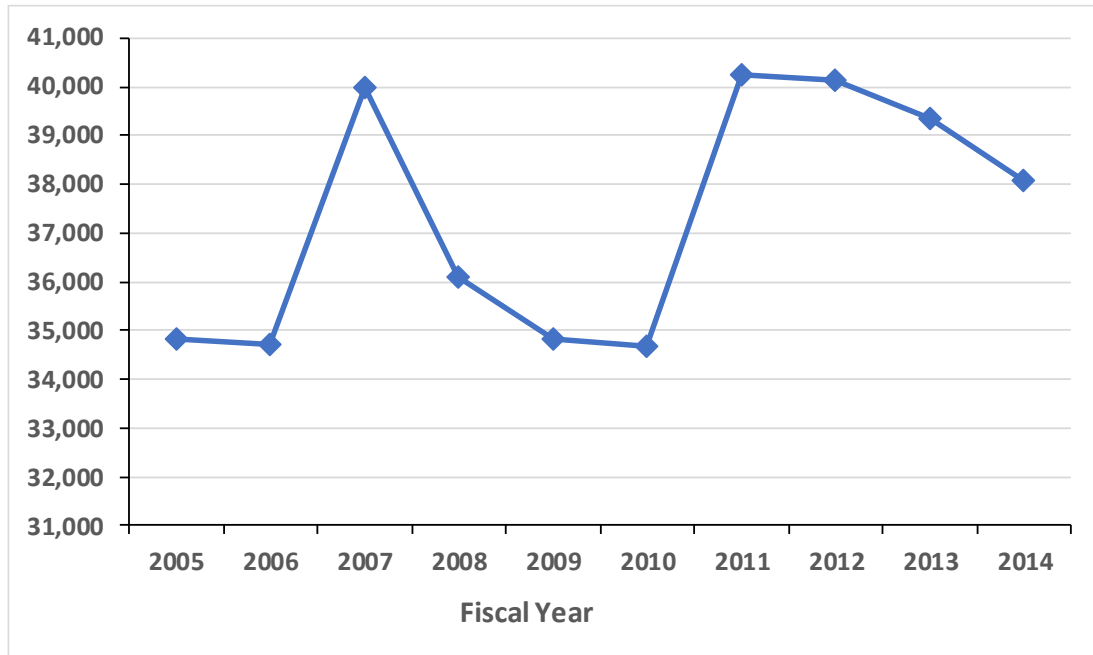
Note: Changes in the investment return assumptions were adopted by the Board for the 7-01-2008 valuation for all plans.

Effective 7-1-2011, actuarial assumptions were changed as a result of a 5 year experience study. The investment return assumption, inflation assumption and the mortality assumption were revised for SCNG. The actuarial valuation of asset method was changed from one that recognized the difference between the expected and actual return on the market value of assets over a 10-year period, to a modified 5-year asset smoothing method for SCNG.

South Carolina National Guard Supplemental Retirement Plan Funding Progress with Funded Ratios¹

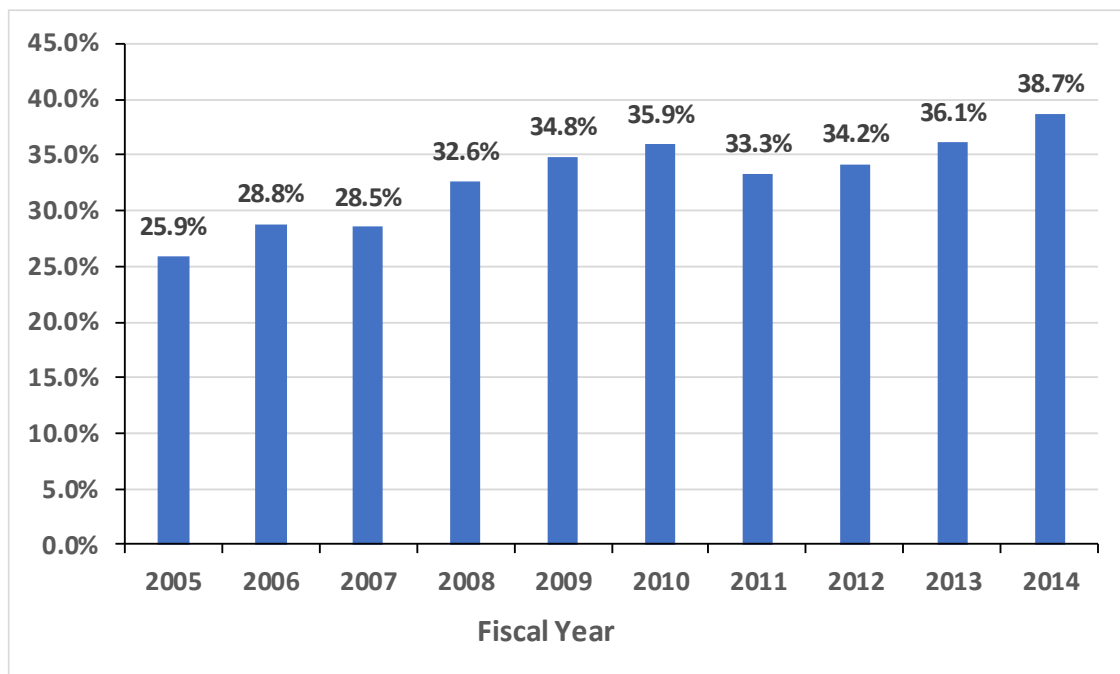
Unfunded Accrued Liabilities

(Amounts expressed in thousands)



Funded Ratios

(Actuarial assets as a percentage of actuarial accrued liabilities)



¹A 10-year schedule of actuarially determined and actual contributions can be found in the Required Supplementary Information portion of the Financial Section as part of the Schedule of Employers' Contributions.

South Carolina Retirement System Reconciliation of UAAL

As of July 1, 2014
(Amounts expressed in thousands)

Item	<u>Amount of Increase/Decrease</u>
Beginning of year UAAL	\$ 15,442,994
Interest on UAAL	1,158,225
Amortization payment	(909,882)
Assumption/method changes	0
Asset experience	293,055
Salary experience	(73,873)
Other liability experience	68,355
Legislative changes	0
End of year UAAL	<u>\$ 15,978,874</u>

Police Officers Retirement System Reconciliation of UAAL

As of July 1, 2014
(Amounts expressed in thousands)

Item	<u>Amount of Increase/Decrease</u>
Beginning of year UAAL	\$ 1,741,715
Interest on UAAL	130,629
Amortization payment	(96,422)
Assumption/method changes	0
Asset experience	30,052
Salary experience	(8,808)
Other liability experience	3,354
Legislative changes	0
End of year UAAL	<u>\$ 1,800,520</u>

General Assembly Retirement System Reconciliation of UAAL

As of July 1, 2014
(Amounts expressed in thousands)

Item	<u>Amount of Increase/Decrease</u>
Beginning of year UAAL	\$ 37,606
Interest on UAAL	2,820
Amortization payment	(3,884)
Assumption change	0
Asset experience	903
Liability experience	(577)
Legislative changes	0
End of year UAAL	<u>\$ 36,868</u>

Judges and Solicitors Retirement System Reconciliation of UAAL

As of July 1, 2014
(Amounts expressed in thousands)

Item	<u>Amount of Increase/Decrease</u>
Beginning of year UAAL	\$ 109,340
Interest on UAAL	8,201
Amortization payment	(6,227)
Assumption/method changes	0
Asset experience	1,336
COLA	(1,733)
Salary experience	(2,323)
Other liability experience	2,860
Legislative changes	0
End of year UAAL	<u>\$ 111,454</u>

South Carolina National Guard Supplemental Retirement Plan Reconciliation of UAAL

As of July 1, 2014

(Amounts expressed in thousands)

Item:	<u>Amount of Increase/Decrease</u>
Beginning of year UAAL	\$ 39,368
Interest on UAAL	2,953
Amortization payment	(4,200)
Assumption change	0
Asset experience	368
Liability experience	(418)
Legislative changes	0
End of year UAAL	<u>\$ 38,071</u>

Solvency Test

(Amounts expressed in thousands)

Actuarial Accrued Liability						Portion of Aggregate Accrued Liabilities Covered by Assets		
SCRS	July 1	Active Member Contributions	Retirants & Beneficiaries	Active & Inactive Members (Employer Financed)	Valuation Assets	Active	Retirants	ER Financed
	2014	\$ 6,717,327	\$ 27,942,644	\$ 8,229,643	\$ 26,910,740	100%	72.3%	0%
	2013	6,491,895	26,548,472	8,155,695	25,753,068	100%	72.6%	0%
	2012	6,459,192	24,732,406	8,266,110	25,540,749	100%	77.2%	0%
	2011	6,472,646	23,160,658	8,378,306	25,604,823	100%	82.6%	0%
	2010	6,222,854	22,585,243	9,965,932	25,400,331	100%	84.9%	0%
	2009	5,980,022	21,381,561	9,788,732	25,183,062	100%	89.8%	0%
	2008	5,708,022	20,624,862	9,329,937	24,699,678	100%	92.1%	0%
	2007	5,464,756	19,084,672	9,217,250	23,541,438	100%	94.7%	0%
	2006	5,229,175	17,800,254	8,989,090	22,293,446	100%	95.9%	0%
	2005	4,915,423	16,891,954	8,410,094	21,625,510	100%	98.9%	0%
PORS	2014	\$ 850,383	\$ 3,490,161	\$ 1,565,284	\$ 4,105,308	100%	93.3%	0.0%
	2013	793,414	3,385,496	1,484,846	3,922,041	100%	92.4%	0.0%
	2012	773,710	3,118,016	1,465,766	3,808,934	100%	97.3%	0.0%
	2011	786,724	2,784,144	1,551,633	3,728,241	100%	100.0%	10.1%
	2010	758,695	2,577,772	1,513,990	3,612,700	100%	100.0%	18.2%
	2009	726,214	2,348,685	1,489,212	3,482,220	100%	100.0%	27.4%
	2008	697,423	2,183,645	1,437,887	3,363,136	100%	100.0%	33.5%
	2007	658,023	1,818,914	1,253,607	3,160,240	100%	100.0%	54.5%
	2006	622,008	1,668,449	1,175,824	2,935,841	100%	100.0%	54.9%
	2005	585,701	1,530,199	1,058,030	2,774,606	100%	100.0%	62.0%

Note: Effective 7-1-2005, actuarial assumptions were changed to include an increase in member contributions to 6.25 percent of earnings for fiscal year 2006 and 6.50 percent beginning fiscal year 2007; all return-to-work retirees and those TERI participants who joined the system after 7-01-2005, contributing at the same rate as active employees; a reduction in the interest rate credited to accumulated employee contributions from 6 percent to 4 percent; and the addition of a guaranteed COLA equal to the change in CPI, but not to exceed 1 percent, for SCRS retirees beginning the July 1st following a full year of annuity payments.

Effective 7-1-2008, actuarial assumptions for SCRS were changed as a result of a 5 year experience study. Changes in the investment return assumptions were adopted by the Board for the 7-01-2008 valuation for all plans.

July 1, 2011, valuation results were adjusted to reflect pension reform legislation in Act 278.

Solvency Test

(Amounts expressed in thousands)

Actuarial Accrued Liability						Portion of Aggregate Accrued Liabilities Covered by Assets			
GARS	July 1	Active	Retirants &	Active &	Valuation	Active	Retirants	ER	
		Member	Beneficiaries	Inactive					
		Contributions		Members	Assets			Financed	
				(Employer					
				Financed)					
	2014	\$ 7,358	\$ 58,098	\$ 9,058	\$ 37,646	100%	52.1%	0%	
	2013	7,164	59,592	8,883	38,033	100%	51.8%	0%	
	2012	7,267	58,213	8,852	39,233	100%	54.9%	0%	
	2011	7,100	58,291	9,213	41,484	100%	59.0%	0%	
	2010	7,265	53,486	7,920	43,712	100%	68.1%	0%	
	2009	6,822	54,586	7,083	45,891	100%	71.6%	0%	
	2008	7,265	53,240	8,617	47,189	100%	75.0%	0%	
	2007	7,735	54,115	9,164	46,925	100%	72.4%	0%	
	2006	8,094	51,870	9,770	46,075	100%	73.2%	0%	
	2005	8,024	51,353	9,784	46,316	100%	74.6%	0%	
JSRS	2014	\$ 22,926	\$ 184,625	\$ 56,742	\$ 152,839	100%	70.4%	0%	
	2013	21,369	178,526	57,093	147,648	100%	70.7%	0%	
	2012	20,005	177,483	54,241	145,604	100%	70.8%	0%	
	2011	18,864	169,841	54,809	144,927	100%	74.2%	0%	
	2010	17,816	150,696	47,311	142,871	100%	83.0%	0%	
	2009	18,431	144,464	51,468	141,797	100%	85.4%	0%	
	2008	17,367	141,510	54,529	138,323	100%	85.5%	0%	
	2007	18,999	149,435	60,954	132,990	100%	76.3%	0%	
	2006	21,857	112,823	76,704	124,837	100%	91.3%	0%	
	2005	20,005	110,876	73,966	118,888	100%	89.2%	0%	

Note: Effective 7-1-2005, actuarial assumptions were changed to include updated normal retirement rates based on analysis of historical normal retirement experience.

Changes in the investment return assumptions were adopted by the Board for the 7-01-2008 valuation for all plans.

Solvency Test

(Amounts expressed in thousands)

Actuarial Accrued Liability						Portion of Aggregate Accrued Liabilities Covered by Assets			
SCNG	July 1	Active	Retirants &	Active &	Valuation	Active	Retirants	ER	
		Member	Beneficiaries	Inactive					
		Contributions		Members	Assets			Financed	
				(Employer					
				Financed)					
	2014	\$ 0	\$ 33,739	\$ 28,361	\$ 24,029	N/A	71.2%	0%	
	2013	0	33,590	27,986	22,208	N/A	66.1%	0%	
	2012	0	32,989	27,953	20,814	N/A	63.1%	0%	
	2011	0	32,038	28,350	20,138	N/A	62.9%	0%	
	2010	0	28,492	25,661	19,458	N/A	68.3%	0%	
	2009	0	27,558	25,863	18,600	N/A	67.5%	0%	
	2008	0	25,554	27,980	17,426	N/A	68.2%	0%	
	2007	0	24,627	31,290	15,937	N/A	64.7%	0%	
	2006	0	22,366	26,389	14,046	N/A	62.8%	0%	
	2005	0	20,804	26,181	12,151	N/A	58.4%	0%	

Note: Changes in the investment return assumptions were adopted by the Board for the 7-01-2008 valuation for all plans.

Summary of Basic Provisions

As of June 30, 2014

SCRS	PORS	GARS	JSRS	SCNG
1. Membership				
<p>All permanent, full-time and part-time employees of covered employers must join unless specifically exempted by statute or are eligible and elect to participate in the State ORP.</p> <p>Individuals first elected to serve in the General Assembly in the general election in November 2012 or after must elect membership in either SCRS or State ORP or elect to be a nonmember.</p>	<p>To be eligible for PORS membership, an employee must be required by the terms of his employment, by election or appointment, to preserve public order, protect life and property, and detect crimes in the state; to prevent and control property destruction by fire; be a coroner or deputy coroner in a full-time permanent position; or be a peace officer employed by the SC Department of Corrections, the SC Department of Juvenile Justice, or the SC Department of Mental Health. Probate judges and coroners may elect membership in PORS. Magistrates are required to participate in PORS for service as a magistrate. PORS members, other than magistrates and probate judges, must also earn at least \$2,000 per year and devote at least 1,600 hours per year to this work, unless exempted by statute.</p>	<p>Generally all persons are required to participate upon taking office as a member of the General Assembly unless exempted by Statute.</p> <p>Closed to new members. Individuals first elected to serve in the General Assembly in the general election in November 2012 or after must elect membership in either SCRS or State ORP or elect to be a nonmember.</p>	<p>All solicitors, circuit public defenders, judges of a Circuit or Family Court, and justices of the Court of Appeals and Supreme Court are required to participate upon taking office unless exempted by statute.</p> <p>Effective July 1, 2014, the definition of judge is expanded to include administrative law judges. Administrative law judges who have not retired are allowed to become members.</p>	<p>Individuals serving in the South Carolina National Guard.</p>
2. Employee Contributions				
<p>Class II 8.0% of earnable compensation</p> <p>Class III 8.0% of earnable compensation</p> <p>Effective January 1, 2013, earnable compensation does not include pay for non-mandatory overtime.</p>	<p>Class I \$21 per month</p> <p>Class II 8.41% of earnable compensation</p> <p>Class III 8.41% of earnable compensation</p>	<p>11% of earnable compensation</p>	<p>10% of earnable compensation</p>	<p>Not applicable as this is a non-contributory plan</p>

SCRS	PORS	GARS	JSRS	SCNG
3. Employer Contributions				
Class II & III 10.75% of earnable compensation	Class I 7.8% of earnable compensation	Annual lump-sum appropriation	47.52% of earnable compensation	Annual lump-sum appropriation
Death Benefit Program 0.15% of earnable compensation	Class II & III 13.01% of earnable compensation	Death Benefit Program Included within annual lump-sum appropriation	Death Benefit Program 0.45% of earnable compensation	Death Benefit Program Not applicable
Accidental Death Program Not applicable	Death Benefit Program 0.2% of earnable compensation Accidental Death Program 0.2% of earnable compensation	Accidental Death Program Not applicable	Accidental Death Program Not applicable	Accidental Death Program Not applicable
4. Requirements for Service Annuity				
Class II 5 years earned service The member is entitled to a deferred reduced annuity at age 60.	Class II 5 years earned service The member is entitled to a deferred annuity at age 55.	8 years of service The member is entitled to a deferred annuity at age 60.	Members are vested in the system with 10 years earned service in position of judge; 8 years earned service in position of solicitor or circuit public defender. For vested members who joined prior to 7/1/2004, member is eligible for a deferred annuity at age 55. For members who joined after 6/30/2004, member is eligible for a deferred annuity at age 65.	20 years total creditable military service, at least 15 of which must have been served in the South Carolina National Guard. Additionally, the last 10 years of service must have been served in the South Carolina National Guard.
Class III 8 years earned service The member is entitled to a deferred reduced annuity at age 60.	Class III 8 years earned service			
5. Normal Retirement Age				
Not applicable	Not applicable	Not applicable	Age 60	Not applicable
6. Requirements for Full Service Retirement				
Class II Age 65 or 28 years of credited service. The member must have a minimum of five years of earned service to qualify for retirement.	Class II Age 55 with 5 years of service or 25 years of credited service. The member must have a minimum of five years of earned service to qualify for retirement.	Age 60 or 30 years of service Age 70 or 30 years of service while continuing to serve in the General Assembly	Age 70 with 15 years of service Age 65 with 20 years of service 25 years of service as judge regardless of age 24 years of service as solicitor or circuit public defender regardless of age Age 65 with 4 years earned service as judge or solicitor and at least 25 years other service with the state if a member as of 6/30/2004.	Age 60 provided the member was honorably discharged from active duty with at least 20 years of total creditable military service. Of that 20 years of service, 15 years, and the final 10 years, must have been served in the South Carolina National Guard.
Class III Age 65 or meet the rule of 90 requirement. This means that the member's age plus the years of service must add up to a total of at least 90. The member must have a minimum of 8 years of earned service to qualify for retirement.	Class III Age 55 or 27 years of credited service. The member must have a minimum of 8 years of earned service to qualify for retirement.			

SCRS	PORS	GARS	JSRS	SCNG
7. Early Retirement				
Class II Age 60 with 5% reduction for each year of age under age 65 Age 55 with 25 years of service, reduced 4% for each year of service under 28. The member must have a minimum of five years of earned service to qualify for early retirement.	Not applicable	Age 60 with 8 years of service credit	Members are vested in the system with 10 years earned service in position of judge; 8 years earned service in position of solicitor or circuit public defender. For vested members who joined prior to 7/1/2004, member is eligible for a deferred annuity at age 55. For members who joined after 6/30/2004, member is eligible for a deferred annuity at age 65.	Not applicable
Class III Age 60 with 5% reduction for each year under age 65 The member must have a minimum of eight years of earned service to qualify for early retirement.				
8. Formula for Normal Service Retirement				
Class I 1.45% of Average Final Compensation times years of credited service Class II 1.82% of Average Final Compensation (AFC) times years of credited service (annual benefit amount). AFC is the average annual earnable compensation during 12 consecutive quarters and includes an amount for up to 45 days termination pay at retirement for unused annual leave. Class III 1.82% of Average Final Compensation times years of credited service. AFC is the average annual earnable compensation during 20 consecutive quarters and termination pay for unused annual leave at retirement is not included.	Class I \$10.97 per month for each year of service Class II 2.14% of Average Final Compensation (AFC) times years of credited service (annual benefit amount). AFC is the average annual compensation during 12 consecutive quarters and includes an amount for up to 45 days termination pay for unused annual leave. Class III 2.14% of Average Final Compensation times years of credited service. AFC is the average annual earnable compensation during 20 consecutive quarters and termination pay for unused annual leave at retirement is not included.	4.82% of earnable compensation times years of credited service	Annual allowance of 71.3% of the current active salary of the member's position. Benefit formula increases by 2.67% for each year of active service over 25 years for judges or over 24 years for solicitors or circuit public defenders. The monthly retirement allowance may not exceed 90% of the current active salary for the member's position. Upon retirement, a member will receive an additional benefit equal to employee contributions and accumulated interest remitted after reaching the maximum 90% benefit.	For 20 years of service, retirees receive a \$50 monthly benefit. For each year of service beyond the 20 years, up to 30 years of service, the retiree receives an additional \$5. The maximum monthly benefit a retiree can receive is \$100.

SCRS	PORS	GARS	JSRS	SCNG
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9. Requirements for Disability Retirement

Class II Permanent incapacity to perform regular duties of the member's job; 5 years of earned service, unless injury is job related.	Class II Permanent incapacity to perform regular duties of the member's job; 5 years of earned service, unless injury is job related.	5 years of credited service. Must be disabled based on job specific standard.	5 years of credited service. Must be disabled based on job specific standard.	Not applicable
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Class III Permanent incapacity to perform the regular duties of the member's job; 8 years of earned service, unless injury is job related	Class III Permanent incapacity to perform regular duties of the member's job; 8 years of earned service, unless injury is job related
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For applications received after 12/31/2013, a member of SCRS will have to be approved for disability benefits from the Social Security Administration in order to be eligible for SCRS disability retirement benefits.

10. Formula for Disability Retirement

The disability retirement benefit based on a projection of service credit to age 65 with an actuarial reduction. Minimum benefit of 15% of AFC at any age.	The disability retirement benefit is based on a projection of service credit to age 55. Minimum benefit of 15% of AFC at any age.	The disability retirement benefit is based on the greater of the following options: a. Service benefit based upon actual credited service or b. 50% of service benefit based on projection of service to earlier of age 60 or 35 years of service.	The disability retirement benefit is based on the service retirement formula.	Not applicable
For applications received after 12/31/2013, the calculation of disability retirement benefits changed to eliminate the projection of service credit used in the benefit calculation.	For applications received after 12/31/2013, the calculation of disability retirement benefits was changed to limit the projection of service credit used in the benefit calculation to the service necessary to reach age 55 or 25 years of service credit, whichever is less.			

SCRS	PORS	GARS	JSRS	SCNG
11. Benefit Options				
Option A (Maximum/Retiree Only) Formula benefit as calculated in item 8. Non-recovered contributions paid upon death.	Option A (Maximum/Retiree Only) Formula benefit as calculated in item 8. Non-recovered contributions paid upon death.	Maximum Benefit (Retiree Only) Formula benefit as calculated in item 8. Non-recovered contributions paid upon death.	Maximum Benefit (Retiree/One-Third Spouse) Formula as calculated in item 8. Continued annuity of one-third of member's benefit to a spouse beneficiary upon death of retiree or return of contributions to a designated non-spouse beneficiary.	Formula benefit as calculated in item 8.
Option B (100% - 100% Joint Retiree/Survivor) Provides a reduced (from Option A) lifetime benefit that upon retiree's death continues to retiree's beneficiary. This option is subject to non-spousal beneficiary limitations based on state statute and an Internal Revenue Code formula.	Option B (100% - 100% Joint Retiree/Survivor) Provides a reduced (from Option A) lifetime benefit that upon retiree's death continues to retiree's beneficiary. This option is subject to non-spousal beneficiary limitations based on state statute and an Internal Revenue Code formula.	Option 1 Provides a reduced (from the Maximum Benefit) lifetime benefit that upon retiree's death continues to retiree's beneficiary. Benefit will not revert to Maximum if all of the retiree's beneficiaries predecease the retiree.	Optional Allowance Provides a reduced (from the Maximum Benefit) lifetime annuity that upon the retiree's death will continue at one-third of the retiree's annuity to a non-spouse beneficiary (or in equal shares to multiple beneficiaries).	
Option C (100% - 50% Joint Retiree/Survivor) Provides a reduced (from Option A) lifetime benefit that upon retiree's death will continue to retiree's beneficiary at 50% of the retiree's annuity.	Option C (100% - 50% Joint Retiree/Survivor) Provides a reduced (from Option A) lifetime benefit that upon retiree's death will continue to retiree's beneficiary at 50% of the retiree's annuity.	Option 2 Provides a reduced (from the Maximum Benefit) lifetime benefit that upon retiree's death will continue to retiree's beneficiary at 50% of the retiree's annuity. Benefit will not revert to Maximum if all of the retiree's beneficiaries predecease the retiree.		
Note: If a retiree selects Option B or Option C and all of the retiree's beneficiaries predecease the retiree, the retiree's benefit will revert to Option A.	Note: If a retiree selects Option B or Option C and all of the retiree's beneficiaries predecease the retiree, the retiree's benefit will revert to Option A.	Revert to Maximum (1A or 2A) This feature will allow benefits to be changed to the Maximum Benefit if the retiree selects Option 1 or Option 2 and all of the retiree's beneficiaries predecease the retiree.		

SCRS	PORS	GARS	JSRS	SCNG
12. Deferred Retirement Option Programs				
Class II	Not applicable	Not applicable	<p>A JSRS member who has not reached age 60, but is eligible to retire and receive the 90 percent maximum JSRS annuity may retire and continue to serve as a judge, solicitor, or circuit public defender. However, the monthly annuity will be deferred, without interest, until the member reaches age 60. Payout of the deferred annuity will be made when the retired JSRS member reaches the normal retirement age of 60.</p> <p>Employee and employer contributions must continue to be paid while a member is participating in the JSRS deferred retirement program, but no additional service is earned.</p>	Not applicable
<p>TERI is a deferred retirement option program (DROP). Upon meeting normal retirement eligibility, a member can elect to retire and continue working under the TERI program for a maximum of five years, after which employment will cease. During the TERI participation, the retirement annuity is not paid to the TERI retirees, but monthly benefits are accumulated in TERI accounts and are distributed to the members upon termination of employment. For members retiring after June 30, 2005, a payment for annual leave is not included in calculating benefits. Upon termination, however, benefits are increased prospectively to include payment for up to 45 days annual leave paid at termination of employment. No interest is credited to the TERI account. TERI participants who entered the program after June 30, 2005, must continue to contribute at the same rate as active members. No additional service credit is earned during this period and participants are ineligible for disability retirement benefits. The TERI program will end effective June 30, 2018. New enrollees in the TERI program after June 30, 2012, must end their participation within 5 years after their retirement date or June 30, 2018, whichever is earlier.</p>				
Class III				
TERI program is not available.				

SCRS	PORS	GARS	JSRS	SCNG
13. Return to Work Provisions				
<p>There is no earning limitation for members who retired prior to 1/1/2013. For members retiring after 1/1/2013, in order to return to work for a covered employer after retirement, the member must first have a complete, bona fide severance or termination of employment. After 30 days of retirement, he may be hired by an employer covered by one of the retirement systems administered by PEBA Retirement Benefits. If the member is under age 62 at retirement and returns to covered employment, he will be subject to a \$10,000 per year earnings limitation. A member can earn up to \$10,000 per year and continue to receive his monthly annuity. If wages earned exceed \$10,000 in a calendar year, the monthly annuity will be suspended for the remainder of that year. The \$10,000 earnings limitation does not apply to a retired member who receives compensation for service as an elected official, service as an appointee of the Governor with confirmation by the Senate, or service by appointment or election by the General Assembly. A retired member may return to covered employment without affecting his monthly annuity if he is a certified teacher and is employed by a school district to teach in the classroom in his area of certification. The \$10,000 earnings limitation does not apply if the State Department of Education determines that no qualified, non-retired member is available for employment in the position, and 1) that a certified teacher is teaching in</p> <p>Continued on Next Page</p>	<p>There is no earning limitation for members who retired prior to 1/1/2013. For members retiring after 1/1/2013, in order to return to work for a covered employer after retirement, the member must first have a complete, bona fide severance or termination of employment. After 30 days of retirement, he may be hired by an employer covered by one of the retirement systems administered by PEBA Retirement Benefits. If the member is under age 57 at retirement and returns to covered employment, he will be subject to a \$10,000 per year earnings limitation. A member can earn up to \$10,000 per year and continue to receive his monthly annuity. If wages earned exceed \$10,000 in a calendar year, the monthly annuity will be suspended for the remainder of that year. The \$10,000 earnings limitation does not apply to a retired member who receives compensation for service as an elected official, service as an appointee of the Governor with confirmation by the Senate, or service by appointment or election by the General Assembly.</p>	<p>An active GARS member who has reached age 70 or has 30 years of service credit may retire and begin receiving a GARS retirement annuity while continuing to serve in office. The retired GARS member will receive a retirement annuity in lieu of a per diem salary and additional line item pay for certain positions. Generally, a retired member of GARS may return to work after retirement with no limit on the dollar amount that may be earned as compensation; however, certain conditions and restrictions may apply to employers covered by SCRS, PORS, GARS and JSRS.</p>	<p>A member who is age 60 and eligible to receive the maximum monthly benefit, may retire and receive a retirement benefit while continuing to serve as a judge, solicitor, or circuit public defender until the end of the calendar year in which the member reaches age 72. Employee and employer contributions must continue to be paid as if the retiree was an active contributing member, but no additional service credit accrues and no additional interest is credited to their retirement account. Prior to July 1, 2014, a retired judge may continue to receive a retirement benefit while employed by a public institution of education, provided the judge does not contribute to or receive service credit in SCRS. This exemption was repealed effective July 1, 2014. Effective July 1, 2014, a retired member who has been retired for 30 days may be rehired by an SCRS or PORS employer and earn up to \$10,000 per year. The earnings limit does not apply to members who retired prior to July 1, 2014, were at least 62 at retirement or are serving as appointed or elected official. Employee and employer contributions must continue to be paid as if the member were active in SCRS or PORS; however, the member cannot be an active member and does not accrue service credit.</p>	Not applicable

SCRS	PORS	GARS	JSRS	SCNG
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Return to Work Provisions (continued)

a critical academic need area or a geographic need area as defined by the State Board of Education, or 2) that a retired certified school teacher or certified employee is employed in a school or school district that has received a “below average” or “unsatisfactory” academic performance rating pursuant to the Education Accountability Act. After approval is received from the Department of Education, school districts must notify PEBA Retirement Benefits of the member’s exemption from the earnings limitation.

14. Post Retirement Increase

Eligible annuitant payees receive an annual benefit adjustment equal to the lesser of 1% or \$500.	Eligible annuitant payees receive an annual benefit adjustment equal to the lesser of 1% or \$500.	Retired member receives benefit based on current salary for member’s position.	Retired member receives benefit based on current salary for member’s position.	Post retirement increases are not provided.
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15. Accidental Death Program

Not applicable	Provides 50% of earnable compensation at time of accidental death in the line of duty as an annuity to either the surviving spouse, children, or parents. The annuity to surviving children ends upon each child’s 18th birthday.	Not applicable	Not applicable	Not applicable
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SCRS	PORS	GARS	JSRS	SCNG
16. Death Benefit Program				
Lump-sum payment equal to one year's salary payable to the beneficiary upon the death of an active or working retired contributing member with at least one year of service.	Lump-sum payment equal to one year's salary payable to the beneficiary upon the death of an active member or working retired contributing member with at least one year of service.	Lump-sum payment equal to one year's salary payable to the beneficiary upon the death of an active member with at least one year of service.	Lump-sum payment equal to one year's salary payable to the beneficiary upon the death of an active member with at least one year of service.	Not applicable
No service requirement for death resulting from an injury arising out of the actual performance of duties for an active member.	No service requirements for death resulting from an injury arising out of the actual performance of duties for an active member.	No service requirement for death resulting from an injury arising out of the actual performance of duties for an active member.	No service requirement for death resulting from an injury arising out of the actual performance of duties for an active member.	
Lump-sum payment to retiree's beneficiary of up to \$6,000 based upon years of service at retirement. TERI participants and working retired contributing members are eligible for an increased death benefit payment equal to their annual salary in lieu of the standard retired member benefit.	Lump-sum payment to retiree's beneficiary of up to \$6,000 based upon years of service at retirement. Retired contributing members are eligible for an increased death benefit payment equal to their annual salary in lieu of the standard retired member benefit.	Lump-sum payment to retiree's beneficiary of up to \$3,000 based upon years of service at retirement.	Lump-sum payment to retiree's beneficiary of up to \$3,000 based upon years of service at retirement.	
17. Withdrawal of Employee Contributions				
Accumulated contributions, plus interest, payable upon request 90 days after termination of all covered employment.	Accumulated contributions, plus interest, payable upon request 90 days after termination of all covered employment.	Accumulated contributions, plus interest, paid as promptly as feasible upon request after termination of all covered employment.	Accumulated contributions, plus interest, paid as promptly as feasible upon request after termination of all covered employment.	Not applicable as this is a non-contributory plan.
Effective July 1, 2012, no interest is accrued on inactive accounts.	Effective July 1, 2012, no interest is accrued on inactive accounts.	Effective July 1, 2012, no interest is accrued on inactive accounts.	Effective July 1, 2012, no interest is accrued on inactive accounts.	

SCRS	PORS	GARS	JSRS	SCNG
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18. Actuarial Cost Method

<p>The individual Entry Age Normal cost method is used for the actuarial valuation of the retirement systems for funding purposes. Under this cost method, the cost of each member's projected pension benefit is allocated on a level percent of payroll over the member's projected service with the Retirement System. Employers also finance the unfunded actuarial accrued liability as a level percentage of pay over a funding period that does not exceed 30 years. This method was selected because it is the method that will produce the most level contributions as a percentage of payroll from year to year. It is also the method that most equitably allocates pension costs among various generations of taxpayers.</p>	<p>The individual Entry Age Normal cost method is used for the actuarial valuation of the retirement systems for funding purposes. Under this cost method, the cost of each member's projected pension benefit is allocated on a level percent of payroll over the member's projected service with the Retirement System. Employers also finance the unfunded actuarial accrued liability as a level percentage of pay over a funding period that does not exceed 30 years. This method was selected because it is the method that will produce the most level contributions as a percentage of payroll from year to year. It is also the method that most equitably allocates pension costs among various generations of taxpayers.</p>	<p>The individual Entry Age Normal cost method is used for the actuarial valuation of the retirement systems for funding purposes. Under this cost method, the cost of each member's projected pension benefit is allocated on a level percent of payroll over the member's projected service with the Retirement System. Employers also finance the unfunded actuarial accrued liability as a level percentage of pay over a funding period that does not exceed 30 years. This method was selected because it is the method that will produce the most level contributions as a percentage of payroll from year to year. It is also the method that most equitably allocates pension costs among various generations of taxpayers.</p>	<p>The individual Entry Age Normal cost method is used for the actuarial valuation of the retirement systems for funding purposes. Under this cost method, the cost of each member's projected pension benefit is allocated on a level percent of payroll over the member's projected service with the Retirement System. Employers also finance the unfunded actuarial accrued liability as a level percentage of pay over a funding period that does not exceed 30 years. This method was selected because it is the method that will produce the most level contributions as a percentage of payroll from year to year. It is also the method that most equitably allocates pension costs among various generations of taxpayers.</p>	<p>The individual Entry Age Normal cost method is used for the actuarial valuation of the retirement systems for funding purposes. Under this cost method, the cost of each member's projected pension benefit is allocated on a level percent of payroll over the member's projected service with the Retirement System. Employers also finance the unfunded actuarial accrued liability as a level percentage of pay over a funding period that does not exceed 30 years. This method was selected because it is the method that will produce the most level contributions as a percentage of payroll from year to year. It is also the method that most equitably allocates pension costs among various generations of taxpayers.</p>
<p>The individual Entry Age Normal cost method is also the actuarial cost method used for financial reporting purposes.</p>	<p>The individual Entry Age Normal cost method is also the actuarial cost method used for financial reporting purposes.</p>	<p>The individual Entry Age Normal cost method is also the actuarial cost method used for financial reporting purposes.</p>	<p>The individual Entry Age Normal cost method is also the actuarial cost method used for financial reporting purposes.</p>	<p>The individual Entry Age Normal cost method is also the actuarial cost method used for financial reporting purposes.</p>

19. Funding Policy

<p>Legislative reform was enacted in 2012 and as a result, SC State Statute now establishes the base funding policy for SCRS. Additionally, the State Fiscal Accountability Authority (SFAA) and PEBA Board as trustees and fiduciaries of the plans, have the authority to maintain or adopt further policy changes above the floor, if they should choose to do so.</p>	<p>Legislative reform was enacted in 2012 and as a result, SC State Statute now establishes the base funding policy for PORS. Additionally, the State Fiscal Accountability Authority (SFAA) and PEBA Board as trustees and fiduciaries of the plans, have the authority to maintain or adopt further policy changes above the floor, if they should choose to do so.</p>	<p>The State Fiscal Accountability Authority (SFAA) and PEBA Board as trustees and fiduciaries of the plan are responsible for establishing and maintaining funding policy. The funding policy currently in place was adopted by the Budget and Control Board in April 1996 in an effort to establish and set forth the essential funding goals and methods by which to measure progress toward those goals.</p>	<p>The State Fiscal Accountability Authority (SFAA) and PEBA Board as trustees and fiduciaries of the plan are responsible for establishing and maintaining funding policy. The funding policy currently in place was adopted by the Budget and Control Board in April 1996 in an effort to establish and set forth the essential funding goals and methods by which to measure progress toward those goals.</p>	<p>The State Fiscal Accountability Authority (SFAA) and PEBA Board as trustees and fiduciaries of the plan are responsible for establishing and maintaining funding policy. The funding policy currently in place was adopted by the Budget and Control Board in April 1996 in an effort to establish and set forth the essential funding goals and methods by which to measure progress toward those goals.</p>
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